From Crisis to Action – Lessons from COVID-19 for Building a Better Future through Sustainable Livestock

Summary Report

Global Agenda for Sustainable Livestock
Online Multi-Stakeholder Partnership Meeting
14-18 September 2020

30 October 2020
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AMR</td>
<td>Antimicrobial resistance</td>
</tr>
<tr>
<td>AN</td>
<td>Action Network</td>
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<tr>
<td>ASF</td>
<td>Animal source food</td>
</tr>
<tr>
<td>AST</td>
<td>Agenda Support Team ....... antimicrobial susceptibility testing</td>
</tr>
<tr>
<td>AUC</td>
<td>African Union Commission</td>
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<tr>
<td>COAG</td>
<td>Committee on Agriculture</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<tr>
<td>GASL</td>
<td>Global Agenda for Sustainable Livestock</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>GFFA</td>
<td>Global Forum for Food and Agriculture</td>
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<td>GG</td>
<td>Guiding Group</td>
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<tr>
<td>GHG</td>
<td>Greenhouse gas</td>
</tr>
<tr>
<td>ILRI</td>
<td>International Livestock Research Institute</td>
</tr>
<tr>
<td>IYRP</td>
<td>International Year of Rangelands and Pastoralists</td>
</tr>
<tr>
<td>LEAP</td>
<td>Livestock Environmental Assessment and Performance Partnership</td>
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<tr>
<td>MSP</td>
<td>Multi-stakeholder partnership</td>
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<tr>
<td>NGO</td>
<td>Non-governmental organization</td>
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<tr>
<td>OIE</td>
<td>World Organisation for Animal Health</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<tr>
<td>TOC</td>
<td>Theory of Change</td>
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</table>
BACKGROUND

Global Agenda for Sustainable Livestock

The Global Agenda for Sustainable Livestock (GASL/Global Agenda) is an international multi-stakeholder partnership (MSP) founded in 2011. GASL’s mission is to enhance the livestock holder’s commitment and investments in support of the 2030 Agenda for Sustainable Development.

GASL brings people and institutions together to understand and recognize the main questions and challenges in the livestock sector, exchange expertise, and provide answers. The multi-stakeholder approach is more efficient and effective than the actions of single stakeholders. The Global Agenda comprises more than 100 partners from governments, multilateral organizations, the private sector, civil society, non-governmental organizations (NGOs) and the research community. One of GASL’s main assets is its diversity of views. The Global Agenda Action Networks collect regional and global experiences and produce advisory documents and guidelines for all livestock systems.

The Sustainable Development Goals (SDGs) provide essential benchmarks for GASL to measure progress in sustainable development. Livestock systems contribute to all 17 SDGs, many with positive and measurable results. The opportunities for poverty alleviation, food security, health, economic growth, innovation, climate stability and social cohesion are numerous and require continuous attention.

The Global Agenda is supported and financed by both donor countries and private organizations, and by in-kind contributions from its members. The Secretariat or the Agenda Support Team (AST), based at the Food and Agriculture Organization of the United Nations (FAO) in Rome, facilitates the activities, organizes meetings and disseminates information.

The annual multi-stakeholder partnership meeting is the main facilitation tool for GASL, and it has taken place in several countries (see Table 1). The Tenth MSP Meeting was initially scheduled for June 2020 in Delémont, Switzerland, but due to the coronavirus disease (COVID-19) crisis, the Global Agenda postponed it to 2021.

Table 1. Multi-stakeholder partnership meetings

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Major issues discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Manhattan, Kansas, United States of America</td>
<td>Innovation for sustainable livestock systems.</td>
</tr>
<tr>
<td>2018</td>
<td>Ulaanbaatar, Mongolia</td>
<td>Livestock on the move, GASL responses to the new dynamics livestock experiences in the global sustainability debate. Regional focus on mobile herding. Global focus on four sustainability domains derived from the 10th GFFA 2018.</td>
</tr>
<tr>
<td>2017</td>
<td>Addis Ababa, Ethiopia</td>
<td>Showcasing livestock-based solutions, tools and cases for sustainable livestock sector development.</td>
</tr>
<tr>
<td>2016</td>
<td>Panama City, Panama</td>
<td>Linking GASL to the SDGs. Clarification of roles of Action Networks. Panama Declaration, firming up the commitments of members towards sustainable livestock sector development.</td>
</tr>
<tr>
<td>2014</td>
<td>Cali, Colombia</td>
<td>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).</td>
</tr>
<tr>
<td>2013</td>
<td>Ottawa, Canada</td>
<td>Decision to go beyond environment. Inclusion of social and health dimensions and focus on practice change.</td>
</tr>
<tr>
<td>2011</td>
<td>Phuket, Thailand</td>
<td>Decision on three focus areas: Closing the Efficiency Gap, Restoring Value to Grasslands, and From Waste to Worth.</td>
</tr>
<tr>
<td>2011</td>
<td>Brasilia, Brazil</td>
<td>Decision to focus on natural resource use with an open, consensual, action-oriented, multi-stakeholder process.</td>
</tr>
</tbody>
</table>

Notes: GASL – Global Agenda for Sustainable Livestock; GFFA – Global Forum for Food and Agriculture; SDGs – Sustainable Development Goals; NGOs – non-governmental organizations.
Given the potential for undermining sustainable development efforts, when the pandemic started, the Global Agenda held a first Guiding Group (GG) meeting on COVID-19 to decide the actions to take regarding the activities of GASL and to gain an initial understanding of the preliminary consequences of the global crisis on the livestock sector. The observable significance of the sanitary crisis led the Global Agenda to conduct an open consultation among its stakeholders to obtain first-hand insights and testimonies of the pandemic’s consequences from a diversity of associations, organizations and individual respondents representing several regions of the world. Responses from African, American, Asian, European and Oceanian countries enabled discussion of the pandemic’s impact on the livestock sector and highlighted the challenges faced by the different regions as well as lessons learned and opportunities arising in every geographical area.

These important testimonies and challenges for livestock provided the impetus for GASL to develop a first online MSP meeting with regional components called From Crisis to Action – Lessons from COVID-19 for Building a Better Future through Sustainable Livestock.

The global objectives of the meeting were to facilitate dialogue among GASL stakeholders and the wider development community; assess the diversity of opportunities and challenges derived from the COVID-19 pandemic across different regions of the world; strategize how the livestock sector can respond towards more sustainable food systems with an enhanced One Health approach and stronger food security outcomes; and finally, prepare inputs for the June 2021 GASL MSP meeting in Delémont and the Food Systems Summit 2021.

The global outcome was to better understand and identify actions to support the role of sustainable livestock in the recovery from COVID-19 and the prevention of similar future events.

The regional objectives were to present the regional impacts of COVID-19 in order to identify drivers of change, consequences and stakeholder responses to the challenges caused by the pandemic in the four sustainability domains adopted by GASL; and to identify options in the short, medium and long term for how the livestock sector could improve its response through a sustainable livestock approach with solutions of a multi-stakeholder nature.

The regional outcomes were reported at the global meeting during Regional Summaries day (Day 2) and were tailored to understand the specific conditions of the respective regions to serve as a common base for global consolidation of results for orienting the discussion towards the impacts of COVID-19 and mitigation actions under different livestock production systems and the four sustainability domains, and to define and propose actions to prevent a future sanitary crisis.

The online MSP meeting and the regional preparatory meetings involved more than 700 participants from eight different regions of the globe: Africa 1 (English-speaking Africa), Africa 2 (French-speaking Africa), Eastern Europe and Central Asia, Latin America, North America, Oceania, Southeast Asia, and Western Europe. Table 2 shows the final attendance figures for all meetings.
Table 2. Final attendance figures for all multi-stakeholder partnership meetings

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Number of registrations</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Session 1</td>
<td>Session 2</td>
</tr>
<tr>
<td>Africa 1</td>
<td>215</td>
<td>139</td>
</tr>
<tr>
<td>Africa 2</td>
<td>58</td>
<td>25</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>Latin America</td>
<td>88</td>
<td>63</td>
</tr>
<tr>
<td>North America</td>
<td>40</td>
<td>34</td>
</tr>
<tr>
<td>Oceania</td>
<td>68</td>
<td>37</td>
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<tr>
<td>Southeast Asia</td>
<td>57</td>
<td>44</td>
</tr>
<tr>
<td>Western Europe</td>
<td>46</td>
<td>30</td>
</tr>
<tr>
<td>Global Meeting</td>
<td>220</td>
<td>110</td>
</tr>
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</table>
GLOBAL OPENING – DAY 1

Introduction to the GASL online Multi-Stakeholder Partnership Meeting

Opening

Henk Jan Ormel, Senior Political Advisor, Chief Veterinary Officer, FAO (moderator)

Ormel welcomed nearly 100 online participants from different regions of the world to the first GASL online MSP meeting, which comprised four sessions: the Global Opening day with an introduction by the GASL Chair and three keynote speakers; the Regional Summaries day with the regional preparatory meetings summaries; the Debate of the GASL Chair Position Finalists day; and the Global Synthesis day, where actions points, conclusions and the introduction of the new GASL Chair were reported.

Introduction

Fritz Schneider, Chair, GASL

The Chair opened the event by introducing GASL as a multi-stakeholder platform operating since 2011 with the goal of promoting sustainable animal production around the world. He noted that 2020 had turned into an unimaginable year for GASL. The Global Agenda, as a multi-stakeholder partnership, meets once a year to bring together livestock stakeholders to address issues of sustainable development, but because of the COVID-19 pandemic, the Tenth Multi-Stakeholder Partnership Meeting in Delémont, Switzerland, had to be postponed.

The pandemic has brought short- and long-term consequences for the world as a whole and posed new and demanding challenges, yet from the pandemic can be grasped lessons and opportunities for change to realign and enforce GASL objectives towards a sustainable livestock sector. For this purpose, GASL seized the challenge to develop an online MSP meeting with eight regional components to learn lessons from COVID-19 for building back a better future through sustainable livestock.

Keynote presentations and discussions on the sustainability domains

The Global Agenda accepts the 2030 Agenda as a reference framework. GASL recognizes that all SDGs are aligned with the livestock sector, and nine are of particular relevance: 1, 2, 3, 5, 8, 12, 13, 15 and 17. GASL has decided to focus its work on four overarching and interlocking sustainability domains, which were incepted at the Tenth Global Forum for Food and Agriculture (GFFA) in 2018 in Berlin, Germany, and further adapted by GASL: food and nutrition security; livelihoods and economic growth; animal health and animal welfare; and climate and natural resource use. Three expert presentations addressed these domains in the scope of the COVID-19 pandemic during the remainder of the first day.
Livestock and One Health under the pandemic

Keith Sumption, Chief Veterinary Officer and Leader, Animal Health Programme, FAO

Sumption began by addressing the developments in One Health and livestock up to 2020 and gave an overview of the evolution of livestock production demand and how the environment and economic demands have challenged livestock systems.

Sumption also referred to how the messages from COVID-19 will help direct the development of One Health. For example, there is a need to go beyond existing partnerships and consider more deeply ecosystems and environmental health. During the last two decades, the One Health approach has developed consistently and more partnerships have been established.

Demand for the One Health approach has been growing because of the need to manage numerous threats to human and animal health, such as infectious diseases and antimicrobial resistance (AMR) with pandemic potential. “There is a need to consider how to integrate a comprehensive consideration of environmental and ecosystems health in what is being done with the One Health approach.” A major consideration is to what extent ecosystem health and emerging infectious diseases will be managed by traditional human and veterinary services, considering that many diseases come from ecosystems.

With regard to livestock health and the restriction of human activities at the farm level, there has been a considerable reduction in vaccination, surveillance and control programmes. There has been a strong impact at the processing level, with reduced availability of slaughtering, cold chains, and cash flow for small and medium enterprises, while constraints on national and international transport have significantly impacted pastoralist communities. Finally, regarding sales and consumption, there has been an increase in food waste and food safety concerns, as well as a shift from fresh products to products with a long shelf life.

In terms of food safety and livestock processing plants, significant concern has arisen from the media coverage and findings regarding the source of COVID-19, its association with packaging and the survival of the virus on some mediums. “Confidence has to be rebuilt through food safety and food processing guidelines and their application.” “How should One Health be rebuilt upon the COVID-19 pandemic?” Rebuilding is a “journey” not only at the national level but also at the individual farm level, since the One Health approach works at the subnational, national, regional and global levels. Capacity development is a major focus of FAO. There is a need for leadership, policy and governance, and for the public and private sector to work together while enabling technologies, the environment and appropriate legislation.

Currently, mainstreaming One Health to an activity is a significant challenge because there are no international indicators providing a level to aspire to. FAO is currently working on strengthening One Health to develop a more comprehensive approach, including restructuring how it delivers the programme under seven specific areas where livestock and livestock production systems are present: global humanitarian response plan, data for decision-making, economic inclusion and social protection to reduce poverty, trade and food safety standards, preventing the next zoonotic pandemic, food systems transformation, and One Health. The prevention of the next zoonotic pandemic programme aims to mainstream the approach, bringing in environmental and natural resources agencies, in both the national and the international One Health landscapes, while
at the same time developing and applying policies to prevent pandemic spillovers at every level.

“How can the livestock sector contribute to the SDGs’ achievements?” There are substantial opportunities for poverty reduction, food and nutrition security gains, empowerment and employment of rural women and youth, improved resource-use efficiency, improved livelihood and increased resilience. Nevertheless, to be transformed, the livestock sector needs to become environmentally sound, socially responsible and economically viable. The key areas for multi-stakeholder action involve enhancing cross-sectorial policy dialogue, considering trade-offs and the contribution to each SDG; extending the One Health approach beyond animal and human health; strengthening access to and co-creation of technologies and innovation; fostering agroecosystem-focused research considering livestock within its production and wider food systems; and finally, supporting the establishment and operationalization of the Committee on Agriculture (COAG) Sub-Committee on Livestock.

**Questions and discussion**

The first question regarded the livestock sector’s role and collective action to prevent the next pandemic. Much reflection is required on the current pandemic because, for instance, its origin is unclear even though the livestock sector can certainly play a role of intermedium or starter in the chain of transmission to humans. It is essential to understand and manage the risks in the country settings where risks may emerge.

It was asked what the main common barriers are to increasing resilience and sustainability. Ministries and governments must first endorse the One Health approach before they can adopt it at the national level. In terms of resilience, ensuring the protection of the environment in the long term will be essential for future livestock systems; in addition, producers need sufficient services and appropriate guidance.

The response to the question of how the livestock sector can move forwards when funding for human and environment systems is limited was that the One Health approach can also be operated at the community level if there is commitment.

Regarding what should be prioritized to increase preparedness for future pandemics, COVID-19 has undoubtedly elevated discussions about pandemic prevention planning. It is necessary to understand the degree of national commitment at the international level to have efficient zoonotic pandemic prevention plans globally. Additionally, there is a need for international exercises to better test international linkages, especially with cross-boundary zoonotic diseases.

The role of education is also important and is linked to where the first transmission events take place, as well as the role of biosecurity, food safety procedures and behaviour change.

Regarding how to manage the fact that intensive livestock systems are blamed as the source of pandemics, consumers may be influenced by animal health even when there is a non-zoonotic epidemic. Access to animal source proteins and potential risks could lead people to modify their buying behaviour. Therefore, it is important to educate about the level of current surveillance and knowledge programmes and to assure the wider public that such quality assessment systems are in place and run by professionals.
Livestock and livelihoods under the pandemic

Simplice Nouala, Head, Agriculture and Food Security Division, African Union Commission (AUC)

Nouala presented the projections of the demand for livestock products prior to the pandemic, which showed that the demand for and consumption of meat would continue to increase globally by 125% for beef, 60% for poultry, 46% for milk and 77% for eggs. The demand for livestock products in Africa alone was projected to increase by 80% because of population growth. In comparison, the per capita consumption would decrease slightly in Africa (−3%) and increase in India and China (+12% and +13%).

To meet these important trends, safe animal source food (ASF) will be vital for reducing stunting and food insecurity. In terms of the impacts of COVID-19 on economic growth and livelihoods, the cost of the pandemic is estimated to be USD 8.5–15.8 trillion, and the pandemic will generate 176 million additional poor, the equivalent of half the South Asia and sub-Saharan Africa regions.

Before the pandemic, Africa experienced severe food insecurity, with 820 million people suffering from hunger. The consequences of the pandemic for food security will be disastrous, with an additional 130 million people in hunger by the end of the year. Moreover, Africa was already experiencing other crises, such as the locust invasion, that impacted food security. It is estimated that the COVID-19 impact could lead to stagnation or a backsliding of the progress made in achieving the SDG goals, in particular SDGs 1, 2, 3, 4, 5 and 10. The devastating impact of the pandemic and the limitation of emergency responses have been felt especially by the most marginalized populations in rural and urban areas.

In terms of lessons learned, “the pandemic is a call for renewed global food systems.” The crisis has highlighted the challenges faced by global food systems and the need to improve resilience by, for instance, shortening supply chains while configuring national and global trade to promote diversity. The pandemic has demonstrated the importance of international corporations and multi-stakeholder partnerships as a flexible platform for advising and determining specific priorities tailored to local needs. The need to understand the impact of the pandemic on the livestock sector is clear. GASL, as a platform, is needed because at present much information is missing regarding the repercussions of the pandemic on the sector and on livestock-dependent communities.

GASL should consider how livestock makes a significant contribution to building the resilience of new food systems, for instance, by sharing sustainable natural resources through conservation of biodiversity for food and agriculture and reducing AMR and the spread of zoonotic diseases. Another concern for GASL should be the transformation of small-scale livestock producers and herders into market-oriented sustainable and profitable enterprises. These stakeholders have been less affected by the pandemic and it is necessary to understand how to strengthen their resilience. Finally, GASL should reflect on how alternatives sources of animal-sourced protein can contribute to building more resilient food systems. The demand for ASF in Africa is expected to decrease slightly, while globally there is also a trend of reducing meat consumption. Nouala put forward the idea of building GASL at the regional level with “regional chapters.” Regional meetings represent an opportunity for stakeholders that cannot attend the global meeting but wish to participate in GASL activities and contribute to more intense discussions on regional specificities.
Questions and discussion
The first question asked whether there is already a move to transform small and medium-scale mixed crop–livestock, livestock herding and pastoralist production systems in a sustainable and profitable way. The African Union, as a political organization, does not have the means of action but it looks forward to having discussions on various options. An analysis of the impacts of COVID-19 shows that they have been greater for commercial enterprises than for smallholders. It is therefore paramount to understand how to transform these activities into sustainable enterprises to reduce the impact on livelihoods and food security. The same reasoning applies for pastoralists, but the question is “how to deal with this when facing challenges of land degradation of pastures and climate change?” These are questions raised by the African Union and addressed to the GASL platform experts.

Another question regarded how the African Union can change governments’ inertia to support livestock and agriculture moving forward. One lesson learned from this pandemic is that governments are showing interest in agriculture because they have seen the weaknesses of global food systems. This interest translates into increased investment in agriculture. The question is how livestock would benefit from these investments, given that one of the challenges faced by livestock and pastoralists is that pastoralism is rarely discussed when food systems are addressed. In Africa and other parts of the world, smallholders are seen as an informal sector and they have difficulties accessing markets. Therefore, there is a need to strengthen intersectoral collaboration at the national level, because livestock is currently left out of agricultural development policies.

The AUC is strengthening collaboration – specifically technological collaboration – among the ministers of agriculture, livestock, trade and finance to integrate smallholders into the market. Facilitating access to the market with food safety standards is a key starting point for transforming these systems.

Livestock and climate change under the pandemic

*Henning Steinfeld, Chief, Livestock Information, Sector Analysis and Policy Branch, FAO*

Steinfeld began by looking at climate change, which is accelerating and moving exponentially. Climate change action is off track, and the 1.5 commitment of the Paris Agreement will likely not be reached. The impact of climate change is systemic and affects every part of society. Also, since it is not moving linearly, it is difficult to predict. Extremes are the new normal. There is increasing variability to which certain groups of countries are particularly exposed, either because the urban area is heavily affected by climate change or because they do not have the means to respond to such changes.

Regarding livestock, the sector is exposed to climate change, but it comprises multiple systems and can be considered flexible, for instance, in terms of resources use and market access. Extensive systems face scarcities, competition for feed and water, and diseases pressure, while intensive systems have an effect on environmental pollution, animal welfare concerns, AMR and emerging diseases. In addition, parts of the livestock sector are heavily reliant on international trade. Another burden is the significant rise in ASF replacements. Finally, there are concerns about how companies do their sourcing and also a threat of carbon border taxes applied to livestock products.
Livestock is under scrutiny because total emissions are on the rise, driven by growth in demand. However, relative emission intensities have declined, although not sufficiently to offset production growth. At the national level, the livestock sector has been listed as an active sector in terms of adaptation and mitigation under nationally determined contributions. At the international level, the Koronivia Joint Work on Agriculture is the only intragovernmental working group considering agriculture. In the private sector, various food and livestock companies have set the objective of becoming neutral by 2030. The last two years have brought a better understanding of emissions pathways, the sources of emissions and gases dynamics with dynamic metrics, such as biogenic and short-lived greenhouse gases (GHGs).

In terms of addressing climate change, productivity and efficiency can be increased in non-productive subsectors, thus achieving a relative reduction in the baseline of emissions. Another potential solution is the more systematic use of livestock to recycle and reuse waste material and by-products to better integrate livestock into a circular bioeconomy. Additionally, because of the large extent of land use in livestock, there are opportunities to generate carbon offsets through improved grazing, pastures, agroforestry and silvopastoral systems. These solutions need to be taken in a context of healthy and sustainable diets including the search for alternative feed and feed products, as well as novel food products, where different forms of protein from plants, fungi, microorganisms are possible options. Finally, an integrated policy framework is required to address these solutions together.

“The impact of COVID-19 on food systems is like climate change” – systemic, non-linear and disruptive. There have been constraints on production and supply, labour shortages because of travel restrictions and shutdowns of production lines, and a decrease in investments and the search for alternatives. COVID-19 has generated a shock not only on the supply side but also on the demand side, with a fall in incomes in many countries leading to a shift in buying habits from expensive products including ASF to cheaper products.

The income factor must be taken into account when predicting the development of future supply. There has been a change in eating patterns; restaurants have suffered tremendously as eating at home has become more common. As a result of the impact of COVID-19 on livestock food systems, the cost of production may increase. Sanitary standards and protective barriers will continue to be generally applied because of a high focus on health and sanitary standards. The operator-built buffers diversify the supply chain and there seems to be increased dependency on diversified local sourcing. Resilience and actions to rebuild operations have occurred during the pandemic but with increased production costs. Structural changes may increase the barriers of entry for smallholders. For instance, African swine fever in China led to a massive restructuring of pig production in the country, with many smallholders and backyard producers no longer able to meet the required sanitary standards. These changes may help to reduce emissions, but it is not certain.

Therefore, livestock systems must rise to the double challenge of adapting on two fronts: changing disease patterns and higher risks, and climate change and higher risks. The sector needs to mitigate any contributions both to the spread of diseases and to GHG and the associated environmental impacts. Multi-stakeholder dialogues are essential to address the complexities and interactions faced by livestock systems, including tackling climate change and pandemics which require broad coordination. With climate change, the lack of metrics to
capture emissions is the biggest obstacle to moving forward faster. The Livestock Environmental Assessment and Performance Partnership (LEAP) addresses precisely this challenge. Multi-stakeholder dialogues should aim to develop best practices applicable to all relevant stakeholders, and the SDG framework is one example. Finally, policy engagement is a requisite for moving forward from crisis to action.

Questions and discussion

The first question concerned the **balance between extensive methods like pastoralism intensification in relation to growing demand, and the need to produce more efficiently.** Regarding the intensification of pastoralist and dryland systems, they often exist in environments that are difficult to intensify. When it comes to extensive methods, it is necessary to look more broadly at the multiple functions that extensive systems provide, such as biodiversity conservation and water and livelihood aspects. Moreover, in many parts of the world, partial systems are under threat because of the lack of a political voice to express concerns. Therefore, it is important to focus on the multifunctionality of partial systems for both the production and the humanitarian sides.

Regarding **the main lesson for sustainable livestock production from COVID-19,** there is the need to learn from how the crisis has revealed the vulnerability of food systems and the entire global population and the almost totally unpreparedness of countries as they fell into the dynamic. Furthermore, global problems such as pandemics and climate change require global consultation. The pandemic will force the human population to restructure and reconfigure operations, industries and businesses, with some companies and farms going out of business while others come up winners. As a multi-stakeholder network, the pandemic offers the opportunity to enter a forced restructuring taking into consideration climate change adaptation and mitigation.

With regard to **who will be the winners and who will be the losers,** when a major shock occurs through the sector, those with high costs and limited capital resources will be the losers. Smallholders may have more limits to accessing markets because of sanitary restrictions and higher production costs compared with large-scale competitors. This does not apply to pure subsistence farmers, who will not be greatly affected. In contrast, those who are already in a powerful position in the market will take advantage of the situation and expand their share of the market.

A question about the **engagement of human health partners dealing with COVID-19 globally with GASL** was addressed to the Chair. GASL has worked very little with the human health community, but it has been working very closely with the World Organisation for Animal Health (OIE), FAO’s veterinary services and the Livestock Antimicrobial Partnership Action Network. Despite relatively little progress with human health partners, there are links with One Health communities at the global level.

On the final question of **what the main lesson should be and how GASL should respond in the near future,** all four speakers were invited to answer. According to the Chair, GASL realizes that systems capable of decentralizing and with shorter value chains are more resilient and have not suffered as much as highly specialized and efficient systems, which have been unable to adapt the production process. GASL needs to embrace the resilience concept, important in future crises.
Nouala stated that one lesson emerging from the COVID-19 crisis is the enthusiasm of policymakers and other stakeholders to respond to the failure of global food systems by emphasizing local production and reducing value chains. As governments work towards intensifying local production, they must take into account environmental concerns in order to address what sustainable intensification is because it is the way forward.

Steinfeld referred to his previous point that pandemics and climate change have similar dynamics and both create damage, as they are both global problems. Global solutions are needed; GASL’s role could involve consultations to find responses. Approaches to diseases and climate change are different in every country, creating inconsistencies and border disorders. Therefore, coordination, harmonization, and exchange of knowledge and experiences are needed in real time. “The threat of any other disease is real, and it is not a question of if, but a question of when, and the answer is now,” and this regards both diseases and climate change, evidenced by a collective failure that occurred through lack of preparedness. The problem stems from human behaviour: action is only triggered once the problem arises, not beforehand to prevent the problem.

Finally, Sumption agreed that there have been many warnings and examples with regard to animal health, with diseases spreading into different territories. The integral management of epizootics poses difficulties, particularly when it comes to complex systems originating in ecosystem health. One Health is not a “luxury” but it is essential to animal, human and environmental health in every country and at every level, from individual farms and farming systems through to the national and international levels.
Welcome

Timothy Robinson, Senior Livestock Policy Officer, Livestock Information, Sector Analysis and Policy Branch, FAO (moderator)

Robinson welcomed more than 100 participants to the second day of the virtual MSP meeting and introduced the objective of the regional meetings held prior to the global meeting. GASL partners provided the drivers, options and solutions from each region on the impact of COVID-19 on the four sustainability domains adopted by GASL. The outcome of the global meeting will enable GASL to identify and take actions to advance sustainable development in the livestock sector. The contributions will also feed the next MSP meeting in Delémont, Switzerland, advancing sustainable livestock options for resilient sustainable food systems, as well as the Food Systems Summit 2021.

The regions were asked to work within a framework that looked at the impacts of COVID-19 in the four domains of sustainability and the different implemented systems: capital-intensive systems, labour-intensive systems and extensive systems. The regional meetings were asked to look at the short-, medium- and long-term impacts, opportunities and challenges faced, and possible knowledge gaps.

Africa 1 (English-speaking Africa)

Shirley Tarawali, Assistant Director General, International Livestock Research Institute (ILRI), Kenya

Tarawali introduced the regional discussions of over 100 participants from the seven GASL clusters for each session. Specifically, the meeting registered 215 participants from 32 countries, of which 16 were African countries. It was organized over three sessions with presentations on the four sustainability domains, working groups, and a virtual share fair with posters and videos on the subject of the different sustainability domains.

Food and nutrition security

The challenges include not only reduced consumption of and demand for ASF due to loss of consumers’ confidence, but also reduced purchasing power, increased likelihood of nutritional deficiency and food wastage, reduced income impacting on food security of livestock-producing households and traders, and disrupted supply chains which also impacted on food. The responses include greater attention to smaller and local production sales and increased access to and use of online information tools. Among the opportunities are the recognition of the importance of local markets and shorter value chains, policy congruence around the One Health approach, use of new technologies, especially digital ones (rapidly adopted), recognition of the importance of ASF, and the emergence of equitable opportunities.

Livelihoods and economic growth

The challenges faced include the collapse of markets with subsequent loss of income and livelihoods, disrupted input supplies, impacts on food loss and waste, restrictions on trade and borders, and the general difficulties in measuring the impacts in these domains, especially those in equity dimensions. In terms of responses, in many cases, food (including livestock and its production) and its transportation have been exempt from movement restrictions; and in some cases
they are subject to tax relief. There has been an increase in partnerships, especially between small producers and government entities. Opportunities include new technologies and digital solutions that enhance the resilience of food systems, increased biosecurity in local markets to continue operations, and improved capacity to control pathogens and threats at the source.

Animal health and animal welfare
Movement restrictions have represented a challenge, impacting access not only to pastures, but also to feed and drugs, which hampers veterinary services, increasing the risk of new outbreaks with further impacts on animal welfare because animals cannot get vaccinated. Reduced access to drugs and feed has caused animal suffering and potential mortality. There have been reports of reduced surveillance and an increase in unregulated environments, leading to more new threats. In terms of responses, resources that should have been destined for the veterinary health sector have been diverted to public health and COVID-19 issues. However, in many cases, animal health is recognized as essential, and surveillance regulations are imposed and strict processes implemented. Opportunities emerging include the promotion of One Health, training, monitoring and information sharing, as well as recognition of the importance of better preparedness with control and monitoring throughout value chains to prevent future outbreaks.

Climate and natural resource use
The challenges are associated with movement restrictions, limiting access to natural resources and causing welfare issues, increased pressure on natural resources, and reduced sale of animals or products as animals remain unsold without a market. In terms of responses, increased collaboration among different stakeholder groups, livestock management and welfare have been deprioritized. There is much debate about whether the environmental impact has been reduced or, in reality, increased in the various production systems. In terms of opportunities, livestock local breeds traits and production systems provide improved resilience to multiple shocks. In addition, increased multi-stakeholder coordination, the incorporation of climate change solutions and the need to rethink the large scale of industrial production approaches all represent opportunities.

“What are the actions to build better that we need to undertake?” The seven GASL clusters all have a role. Academia and research talks of digital solutions, the multidisciplinary nature of the One Health approach, from research on resilience and how to better promote research solutions, to the importance of partnerships and evidence for better-informed policy and investment decisions. The NGOs refer to support for local capacity for better contingency for resilience, policy advocacy, and the ability to provide local evidence for solutions based on the livestock sector. The private sector raises the issue of scaling and tailoring packaging distribution of inputs, and points to the importance of innovative business models and the need to rebuild better markets and value chains. The social movements stress the importance of inclusion, supporting advocacy and engaging across different scales and production systems. The donors highlight the importance of going beyond investing in agriculture and livestock per se and moving towards wider development issues, and of supporting sector assessments for the different countries, in order to better establish priorities. This would facilitate countries’ decisions and advance on the priorities in the livestock sector and the resilience of sustainable food systems. The donors also stress the importance of supporting investments in digital and new technology solutions. The multilateral group raises the issue of collaboration for One Health solutions,
producing evidence and communicating messages for advocacy and strengthening the role of rebuilding resilience at the local level. Finally, the public sector recognizes the importance of multi-stakeholder engagement, and the role of governments in providing policies, resources and a supporting and enabling environment for all stakeholders.

Africa 2 (French-speaking Africa)

Barry Boubakary, Independent Consultant, Education/formation – Pastoralism, Burkina Faso

Boubakary stated that the three regional meeting sessions mobilized around 67 participants and several panellists for the pastoralism session, agropastoralism session and intensive breeding session. Some meetings were characterized by weaknesses, such as an absence of the farmers’ umbrella organization, presentations that did not follow the structure of the subject area, or a lack of well-documented statistics in presentations.

The economy of most French-speaking countries, in particular the Sahelian countries of West and Central Asia, remains strongly dominated by the primary sector where livestock contributes approximately 10–40 percent to the gross domestic product (GDP). Multidimensional crises have considerably affected the sector: climate change, the scarcity of resources linked to tough competition with other users, the security crisis which further weakens the macro- and microeconomic balances and, more recently, the COVID-19 pandemic, which is a serious blow and a threat to the sector because of the many travel restrictions. In these contexts, the major challenges have concerned the resilience and adaptation of mobile, semi-mobile and intensive farming systems, as well as the specific roles of actors for the development of sustainable and resilient breeding. The main impacts on the sustainability domain are reported within the framework of GASL.

Food and nutrition security
The pandemic has exacerbated the problem of poverty and social inequalities regarding access to food products, with increasing restrictions on exchanges of food and feed resources at the national level and between countries, coastal countries, and countries of departure. The milk sector especially has been considerably affected by the confinement, with a drop in consumption at the household level; foreign exchange rates have stagnated due to the travel restrictions.

Livelihoods and economic growth
In general, the supply chain of animals has fallen sharply, resulting in a fall in production activities; the feed supply for livestock has experienced issues, resulting in a rise in feed prices. Movement restrictions have disrupted the input supply chain, with a major negative impact on small producers in informal markets. The impact on traditional sectors has affected the empowerment of women. Reduced production of slaughterhouses in coastal countries has been evidenced, with a subsequent deterioration of trade and a fall in the market value of animals. Also, a strong decapitalization of livestock farmers has occurred due to shortages of pasture and food, lack of market, loss of jobs and a 50 percent collapse in animal prices. The decrease in average monthly income of populations during confinement has exacerbated the employment situation. Finally, there has been a suspension of loans and taxes for breeders and an impact on project implementation.
Animal health and animal welfare
The supply chain of veterinary services has been broken, leading to a severe shortage of inputs and products. Veterinary tests in research centres have been temporarily blocked, and animal health supervision has slowed down with increased mortality of animals (compounding a difficult end to the dry season in the Sahel). Finally, the risk of meat and milk contamination has reduced the consumption of these products.

Climate change and natural resource use
The concentration of livestock constrained in mobility has caused pressure on water resources and pasture. In pastoralist and agropastoralist systems, pastoralists’ revenues have decreased due to the drop in trade, and there has been an increase in conflicts over resources between transhumant pastoralists and natives because of constraints on mobility. Attacks and robberies in livestock markets have led to a considerable drop in animal prices, mostly in the goat market, and markets have closed in countries such as Nigeria and Ghana. A −50 percent shortfall in the volume of exports has been evidenced. In intensive systems, 60 percent of farmers have closed their activities due to monetary disruption of chicks, feed, livestock and other imported inputs. There has been a shortage of pullets because of border closures, an increase in food loss and a fall in technical employment opportunities; in addition, cattle fattening centres have had to shut down. In dairy farming, a disruption of the distribution chain due to multiple restrictions has been evidenced (travel, closure) with a shortage of inputs. A reduction in both demand and supply has been registered, with a consequent decrease in producers’ income.

The responses have included the establishment of a pass for certain goods, including livestock, but this concerns mainly the formal sector, facilitating the movement of food, animals and animal products. The return of transhumant pastoralists to the rangelands was unblocked at the start of the rainy season, and cattle markets have been reopened for special occasions (such as the Tabaski festival in October). There has been sensitization at the livestock market level regarding barrier measures and protection kits and implementation of measures in slaughterhouses to strengthen health structures (equipment and training) to prevent the spread of diseases and maintain activities. The authorities have paid more attention to the pastoralists’ movements than in the past (not in Benin where the borders have been closed). Numerous digital applications have been initiated to overcome mobility restrictions (useful for paying producers, carrying out animal sales, and procuring and paying for inputs) and support has been made available to provide feed and free animal vaccinations. Weaknesses include a lack of consistency between countries, delays in state distribution of food for humans and livestock, and problems intervening due to a lack of information on the actors and target areas, especially for mobile pastoralists.

In terms of lessons and opportunities, pastoralist farming dominates in the area and it is resilient by nature. Indigenous races have the ability to resist endemic diseases and harsh climatic conditions, survive poor-quality diets and travel long distances to access food and water.

Breederes are used to difficulties associated with movement because they are historically located in cross-border conflict areas. “What is missing is a strong, coordinated and regional strategy.” Livestock needs to be positioned at the centre of political discussion to show that it is essential to development. Moreover, short-lived intensive farming has been shown to be overly dependent on imported inputs; therefore, it is necessary to rethink the structure of such systems. The processing unit and milk collection sectors have proved to be unsustainable and must be developed.
The challenges include bringing animal health to a satisfactory level, reinforcing the complementarities between ecological zones, and strengthening security and investments in infrastructure for pastoralist mobility. In addition, there is a need to enhance dialogue between countries regarding the cross-border commercial mobility of livestock, develop commercial livestock transport models and provide up-to-date statistics on the impact of the crisis. Further challenges entail assessing the importance of mobility in terms of the efficiency and resilience of pastoralists, and saving lives which have been threatened by insecurity and by COVID-19 itself. The solutions include harmonizing the functioning between countries throughout the value chain and between all identified stakeholders, including informal stakeholders. It is necessary to sensitize politicians on the role of pastoralists, make long-term investments to strengthen their mobility and safety, preserve pastoralist areas, and develop digital applications and online sales in pastoralist settings. It is important to strengthen the education of the population in human and animal health, diversify jobs and incomes for young people, and support and restructure the sector.

Eastern Europe and Central Asia
Yuriy Nesterov, Livestock and Animal Health Specialist, Subregional Office for Central Asia, FAO

Nesterov presented the meeting with 30 participants from different stakeholder groups representing the region’s different and diversified production systems, including subsistence farming and more modern state-of-the-art production facilities in other systems. From the presentations and conversations on the impacts of COVID-19 on the regions emerged important key messages that can be universally applied to respond to and prevent similar crises.

Preparedness for crises
It is of paramount importance that the livestock sector be prepared for different crises. The focus must be on a holistic approach to the various forms of shocks and impacts on different spatial and temporal scales. It is important to address all levels and supply chains, including farm inputs – not only livestock production, but also feed supplies and veterinary services, for example. Furthermore, it is necessary to ensure that farmers have access to markets and can continue earning income during the crisis. Finally, it is essential to focus on resilience and prevention rather than deal only with the impacts: prevention is much more cost-efficient than investment in emergency systems. In many production systems, dependency on outsourced farm inputs should be reduced when possible to avoid cases of interrupted feed supply as seen in the Eastern Europe and Central Asia region.

Analysis of sustainable investment options
There is the need for a thorough analysis of sustainable investment options in the livestock sector. The focus must be on investment in preparedness for disease outbreaks and other impacts, and on the resilience of livestock production. It is also necessary to identify investment opportunities with multiple positive effects, including response to health crises, sustainable economic growth, and resilience to crises and disasters (health, climate, social etc.). It is vital to decrease negative environmental externalities and make a strong contribution to poverty reduction, especially among smallholders and family farmers, who are vulnerable to such crises. Finally, there is a need to broaden the scope and time frame of the economic assessment of planned interventions in order to capture the aggregated and long-term benefits of prevention measures.
Latin America

Rogerio Mauricio, Researcher, Federal University of São João del-Rei, Brazil

Mauricio explained that the organizing committee held a consultation with 64 participants from 11 different countries of the region. They discussed questions relating to the impact of COVID-19, opportunities and challenges, and actions for farmers, producers, governments, academia and industry. The results were divided into impacts, mitigation measures, and lessons learned and future expectations.

Farmers
The social recognition of the importance of farmers and farm activities is a positive impact. On the other hand, the reduction in sales and especially technical assistance, because of movement restrictions, is a negative impact. Mitigation measures include the adaption of biosecurity protocols enabling farmers to continue their activities during the crisis. The sector has learned numerous lessons: there is a need to transition towards sustainable systems such as agroecology; digital tools must be more widely used; partnerships must be built for the future between farmers and other sectors; training on capacity building is required; the importance of livestock food values must be recognized; and it is necessary to create opportunities for the local market, small farmers and exports.

Industry
The rapid improvement of industrial processes in terms of biosecurity is a positive impact. A negative impact is the shutdown of industrial plants such as slaughterhouses. Mitigation measures are the rapid response and adjustment to biosecurity protocols (e.g. testing of workers). In terms of lessons learned, it is important to foster alliances between chain actors, there must be continuing capacity to provide healthy nutritious food for the world, with incentives for sustainable livestock systems, and institutions need to invest in systemic and holistic research approaches.

Governments
Positive impacts include the increased use of digital tools and the rise in incomes for exporters in some countries (e.g. beef exporters in Brazil and Argentina). The negative impact is the economic crisis leading to unemployment, poverty and reduced tax collection. Mitigation measures include the implementation of digital tools such as e-commerce and technical assistance; however, there have been few actions aimed at the rural sector. Lessons learned comprise the importance of supporting the transition towards more sustainable systems, improving use of digital tools, providing financial support for the post-pandemic period and, finally, promoting healthy livestock products.

Academia
A positive impact is the shift towards new research areas such as the importance of native pasture versus exotic species. A negative impact is the reduction in the budget available for ongoing research projects in most countries for investment in other areas. Mitigation measures comprise support for adjustment of biosecurity protocols. Regarding lessons learned, it is important to improve connections among research centres and livestock value chains, research is required on pasture-based systems, a systemic holistic research approach must be adopted involving environment, animal welfare, biosecurity and silvopastoral systems, and scientific results are required to formulate policies.
Impacts and learning on the four sustainability domains

Regarding **food and nutrition security**, significant impacts have been felt in terms of food shortages, increased demand for healthy food and continuous farmers’ activities. Concerning **livelihoods and economic growth**, there has been a reduction in domestic consumption and trade; there is a need for policies targeting livestock smallholders and for scientific projects closer to farmers’ needs. With regard to **animal health and animal welfare**, it is vital to strengthen biosecurity and adopt better animal welfare practices, and the One Health approach has an important role. Regarding **climate and natural resource use**, progress in sustainability should be based on science; there is a need for frameworks to quantify the impacts of production system changes, such as natural resource efficiency, and robust sustainability indicators must be adopted.

In conclusion, the organizing committee considered the development of a regional chapter of GASL in Latin America, because many issues could be better addressed on a regional basis, including biosecurity, One Health, sustainable livestock systems, research and development coordination, information sharing, exchanges on lessons and country experiences.

**Oceania**

*Liz Wedderburn, Assistant Researcher Director, AgResearch, New Zealand*

Wedderburn introduced the meeting that had over 60 registrations from all actors in the sector and covered the challenges, short- and medium-term impacts of COVID-19, and lessons for the future in the meat, dairy and deer sectors. Oceania is a mixture of extensive grassland and hybrid intensive/extensive grazing-based systems. Moreover, the continent has a significant export focus: in Australia, 70 percent of beef is exported and in New Zealand, the livestock sector represents 53 percent of total export revenues. Therefore, in terms of livelihoods, a large percentage of the GDP comes from this sector.

In terms of challenges, it has been hard to maintain the smooth running of key production processing, auditing and distribution services throughout the crisis. Travel restrictions make it impossible for migrant workers to reach Oceania, which relies massively on migrant labour, and the measures implemented to safeguard workers’ health and safety on the farm and in the processing sector have resulted in a labour shortage. There have been social distancing constraints at abattoirs, and saleyards have been closed. This places considerable pressure on the throughput of animals, which has slowed down, meaning that animals have had to be retained on farms longer than normal. There has been restricted movement for transport, particularly for essential supplies. Also, taking into account Oceania’s isolation, it is important to maintain and ensure key import supply chains for stock feed and animal health material. Because of the heavy dependency on export, it is crucial to maintain ongoing access to those export markets. Additionally, particularly for the deer sector, some of the high-value cuts destined for restaurants globally have experienced a decrease in demand due to the closure of activities. Internally, panic purchases at the supermarket have been recorded, with significant purchases of red meat. Food safety misinformation among the general public has linked livestock to COVID-19. Finally, in New Zealand, the COVID-19 outbreak occurred after an unusually dry period of drought in the country, representing a challenge for natural resources because of the extra pressure in terms of feed and animals on-farm holding.
Regarding responses, governments deemed agricultural primary production to be an essential service and urgent protocols involved biosecurity controls, registration and verification processes. Also, the general public is aware of the importance of farming and primary production. One of the key points to emerge is cooperation and coordination across the sector, particularly in terms of communication with farmers and the public through social media. Communication has also been kept open with the export market and international supply chains. The development of guidelines and their regular updating, as well as help desks to answer questions, have proved fundamental mechanisms for keeping people informed. The use of hybrid systems for selling was rapidly implemented and was well accepted in Australia and New Zealand. There has been a resolve to protect access to overseas markets, together with a notable rise in online services and home delivery. In both countries, there have been government wage subsidies, tax support and small business cash flow loans to ensure that the system’s economics keep flowing. Especially in New Zealand, there has been support for drought-affected regions, particularly with regard to human and animal welfare. Finally, a nationwide programme has been established to encourage local people into the primary production sector to provide job opportunities.

The key lessons learned regard the ongoing importance of Oceania’s high-quality food safety system and the maintenance of and trust in domestic and international relationships. The response to COVID-19 is part of a broader story of credibility, and many of the frameworks for sustainability that the sector already had in place have been reinforced, particularly around the general consumer. The fact that Oceania has diverse export markets, a deep understanding and a relationship across these, boosts resilience, and this may be attributable to trade agreements enabling flexibility. In addition, new products and new meat cuts have aimed to meet new consumer requirements for eating more at home and making online purchases. There is a focus on product quality and the importance of maintaining communication and coordination, involving the updating of fast-changing information across different media to ensure easy accessibility for people. Finally, it is important to consider different scenarios on climate, market access and people’s behaviours in terms of how the industry might respond in the future; this would be helpful for strategic planning.

**Western Europe**

*Andrea Rosati, Secretary General, European Federation of Animal Science*

Rosati introduced the European meeting that covered broad topics about the impacts of COVID-19 on livestock systems: supply chains and sustainable livestock systems, COVID-19 and animal health and welfare, and zoonotic emergency preparedness and interventions.

**Supply chains**

COVID-19 has had a major impact on food production, food processing, food retailers and consumers. Food production challenges include access to labour and movement of the international workforce within EU countries, as well as fluctuating demand from milk processors and slaughterhouses. In terms of response, the food production sector has invested in precision agriculture, which is one of the reasons why livestock farming in the European Union (EU) is quite resilient. Also for food processing, there has been a shortage of labour forces in centres where conditions are suitable for virus transfer – a major challenge. The response has been neither to find alternatives to distribution challenges nor to scale back.
Regarding food retailers, the first lockdown resulted in considerable pressure for meat and dairy markets, causing unstable market prices with rapid changes. Consumers in the EU have changed habits, with less consumption in restaurants and more at home with an increase in online orders. The response to this pressure from consumers has been to help them to shop safely with, for example, e-commerce. Finally, consumers’ changes in purchasing habits and access to food are reflected along the value chain.

Animal health and welfare
There is no susceptibility nor clinical signs to evidence that livestock are a possible source of infection in humans for the transmission of COVID-19, despite the fact that some fake news and misinformation maintain the opposite. The short-term impact of COVID-19 on livestock has been on animal welfare, with slaughterers holding stocks due to changes in food demand. Border rejects and lack of free movement of goods between countries has also led to transport stress. Furthermore, the control of animal diseases is impacted because of problems arising from movement restrictions, a decrease in hunting activities and wildlife population control, and a reduction in routine veterinary activities due to veterinarians’ services and laboratories being used to process human samples for COVID-19.

Nevertheless, the EU’s food systems have managed the crisis without significant disruption in the food chain and have proved very resilient. There has been an impressive mobilization of the scientific and research community, providing a prompt response to the needs of risk management. It is necessary to continue activities, build new knowledge and provide reliable information using the proper channels. As an international organization for animal health, OIE continues to deal with animal health management and fight animal diseases and unjustifiable barriers to trade, recognizing that the food sector’s work is critical. Finally, there must be coordination between international organizations.

Zoonotic emergency preparedness and interventions
Regarding the economic impact of the livestock sector in the EU, there has been a recession of 5–20 percent on purchasing power, disruption of the global supply chain due to sanitary barriers, and tension in global trade with an overall decline of 8 percent in global trade and a slight decline (around 0.5 percent) in beef production in the EU. The food systems and the EU single market have proved relatively resilient because countries are well connected and harmonized in terms of veterinary services and trade decisions. However, the economic recession will result in a reduction of meat prices.

From the societal point of view, concerns related to livestock are rising in the EU. These concerns must be changed from negative to at least neutral, showing that livestock has a key role converting non-food biomass into nutritious food to produce circular neutral fertilizers providing ecological services. Connecting the circularity requires a design from the One Health perspective because circularity issues are naturally connected. A transdisciplinary approach is required to understand zoonotic emergencies and predict and challenge them. Finally, sharing information will be essential and will also improve coordination efforts within the EU, but especially at the international level.
Kanter explained that more than 50 people from various parts of the sector participated in the meeting to examine the challenges posed by COVID-19 in the sector and some of the lessons learned.

In a pandemic and similar crises, effective communication among all stakeholders is key. For some, pre-existing relationships are important to engender trust, while for others, it is imperative to have risk management programmes and worker safety protocols in place in advance. At the beginning of the outbreak, human infections and shortages of protective equipment for workers created added problems such as absenteeism and fear; being better prepared in the future can alleviate workers. The need for more flexible supply chains is also an issue.

In North America, much ASF has been consumed from home during the pandemic and the supply chain shift from food services to retailers has been challenging. It is noteworthy that even in the face of COVID-19 with rising prices and income disruption, sales of ASF have increased – a result of people eating more “comfort food” at home. Initially, consumers were hoarding with an impact on both supply and demand, although food shortages never occurred.

Industry groups report that the benefits from government programmes and some private-public partnerships have been vital for supporting industries. The governments of both the United States of America and Canada have designated the food and agriculture sector as critical infrastructures, and supply chains can therefore remain open without large-scale shortages. Furthermore, buy-back and purchasing programmes have been put in place by the governments. In Canada, livestock price insurance programmes have increased lending capacity to consumers and mitigation measures have included emergency wage subsidies.

Other challenges faced by the beef industry include the need for small, regional packing facilities to mitigate supply chain risks during future crises. Large processing facilities that distribute to regions far afield create problems. Sectors able to hold back animals or slow down production, particularly the beef and dairy industries, can employ a range of tactics to reduce the need for dumping and minimize waste of products. In contrast, in other sectors with different models, such as the pork sector, holdbacks are more problematic, resulting in major losses. The industry has given away live animals to avoid large-scale euthanasia.

Several issues related to the humanitarian and environmental sectors are cited by NGOs. COVID-19 has increased food insecurity and exacerbated food production issues and will push more people to extreme poverty. There has also been increased zoonotic exposure in recent years and it is essential to foster healthy ecosystems to mitigate exposure and vulnerability. There is a need to develop more structural flexibility in specific sectors, particularly production. In conclusion, the COVID-19 crisis is cited by the World Wide Fund for Nature as an opportunity to look critically at current systems and create more sustainable solutions.
Ghotge explained that the meeting comprised participants from stakeholders and representatives of different groups from South, Southeast and East Asia. The focus was on the impacts of COVID-19 and future opportunities in countries in the region.

In the different countries, the impacts of the pandemic have been felt across the livestock sector, including large, small, capital-intensive, low-input and labour-intensive systems. The impact has varied with disruption along the value chains, leading to negative socio-economic consequences; the relevant data still need to be collected and statistically quantified. Furthermore, when COVID-19 hit, countries were facing other issues, such as droughts in Mongolia, African swine fever in several Southeast Asian countries, and the locust invasion in India and Pakistan. Movement restrictions placed on pastoralists have led to overgrazing problems in countries such as Mongolia. In Cambodia, China and several other countries, livestock prices registered a fall and the purchasing power of consumers decreased due to the economic consequences of the lockdowns. In South Asia, misrepresentation through social media has made consumers wary of buying meat, especially poultry from industrial sources. In India and Nepal, organized dairy and poultry sectors have felt significant economic impacts. Veterinary services have been disrupted in several countries, and groups such as pastoralists and smallholders have proved particularly vulnerable because of the above-mentioned issues which coincided with COVID-19 (droughts, market closures, African swine fever).

The responses of governments have varied: in Sri Lanka, for instance, the impacts have been minimal, while in China, the Government has provided herders with ecological subsidies and fodder subsidies; many other governments were caught unprepared and have struggled to respond adequately.

Some systems, however, have been shown to be resilient to the impacts. Smallholders, as well as traditional and pastoralist systems, have recovered and adapted quickly because of their diversity and the fact that they are less dependent on external resources, markets or even government support. Where networks and farmers groups are strong, there seem to have been fewer issues arising; moreover, NGOs, civil society organizations and community animal health workers have provided substantial support to lessen the shock in several situations. In addition, there has been an increase in ethnoveterinary medicine practices in the absence of other systems.

New opportunities in local markets include sharing of food, new supply chains and online platforms. There have also been new entrants into livestock rearing. In India, where the migrant labour was forced to leave the cities in lockdown, returning to their homes has represented a new opportunity.

In order to prevent new pandemics, early detection, rapid responses and sustained control are essential, together with promotion of the One Health approach with more attention to environmental health. There needs to be support for traditional systems, smallholders and pastoralists, as well as short value chains, local systems, local production and consumption. Better and ethical surveillance is required, in addition to diagnostics and reporting, and platforms need to be built based on collaboration between farmers, partners, research institutes and governments. There must be increased awareness raising and education on diseases across the supply chain, especially at the level of small
farmers, butchers and traders, and finally, improved facilities for the handling, processing, storage and marketing of livestock products.

Questions and discussion
The first question was directed to Shirley Tarawali and asked to what extent farmer organizations are involved in regional meetings and how their participation can be improved. The Africa 1 meeting saw the participation of farmers, and this was very positive, because they introduced a real on-the-ground perspective tempering the views of those not close to the ground. GASL needs to involve farmer organizations much more and the platform should connect these groups to all the other stakeholders to enable the two-way flow of information and knowledge.

Another question to Tarawali concerned challenges such as scarcity of resources and disease control that require a regional approach and implementation with regional economic communities for updated action in the Africa regions. The Africa 1 meeting highlighted many of the processes and policies put in place regionally to support some of these challenges. However, they were not necessarily connected to the wider stakeholder group, which could benefit from being strengthened. Further, there needs to be a greater focus on the issue of transboundary diseases.

Liz Wedderburn was asked to expound on the fact that the Oceania region did not seem to be that affected because it is mostly grassland-based and not dependent on feed imports. Oceania does actually have problems because, despite the grassland-fed systems, which allow for flexibility, the sector still requires animal health supplies and other inputs. Issues are expected to emerge at a later stage because they are influenced by the cycle of the seasons.

Wedderburn also responded to the topic of farmers and stress caused by the pandemic. It has been important not only to acknowledge farmers’ well-being throughout the crisis but to understand the drivers for improving their resilience and mental health.

A question was addressed to Andrea Rosati about connected circularity. The connections to a circular economy are food security and resource security, which work together in a circular way.

Another question for Rosati concerned the best practices to address the COVID-19 global crisis given that each region has diverse priorities. Solutions and approaches vary because of varying economic status and different societies. Nevertheless, at the same time, the world is connected, which means that it is necessary to approach the same problem with different resources and methods. In general, diversity must be maintained.
**Welcome**

*Fritz Schneider, Chair, GASL*

The Chair welcomed more than 100 participants to the third global session of the GASL online MSP meeting, where the finalists for the new GASL Chair position would debate and answer questions from participants. The finalists had been selected through several steps: first, the screening of the 130 candidates that responded to FAO’s public vacancy announcement; then, a shortlist of the 15 most suitable candidates; and finally, the nomination of three finalists from the GASL GG: Fabiana Alves Villa, Shirley Tarawali and Walter Oyhantcabal.

Oyhantcabal resigned immediately prior to the debate with a letter that explained his reasons and stated his willingness to continue supporting GASL with a different mandate and his gratitude for having been selected. After the debate, the GG met to choose the GASL Chair, to be announced during the fourth and closing session of the global meeting.

**Introduction of the candidates**

*Marilena Heinrich, Programme and Budget Officer, Office of Strategy, Planning and Resources Management, FAO (moderator)*

Heinrich introduced the two finalists.

**Fabiana Villa Alves** is a senior researcher at the Brazilian Agricultural Research Corporation (Embrapa Beef Cattle) based in Campo Grande. She holds a degree in Animal Science from the Federal University of Lavras and a PhD in Animal Science and Pastures from ESALQ University of São Paulo. Her most recent accomplishment is creating and effectively establishing the novel public–private initiative called Carbon Neutral Brazilian Beef, offering market-feasible science-based certification for sustainable beef production paid for by end consumers. Thanks to her experience in the private sector, she established a carbon-neutral value chain for beef. Today she leads Embrapa, the largest public–private partnership involving a global-level meat packer.

**Shirley Tarawali** has over 35 years of experience in implementing, leading and managing agricultural and livestock research development. She has been engaged with GASL since its establishment in several roles, including participant, GG representative of the Intergovernmental and Multilateral Organizations Cluster, organizing committee member for the Seventh MSP Meeting in Addis Ababa in 2017, and member of a small task force on the conceptualization of the GASL Action Plan 2019–2021 and the Theory of Change (TOC). She is Assistant Director General at the International Livestock Research Institute (ILRI), covering responsibilities such as strategic planning, corporate communication and knowledge management functions, capacity development, oversight of the legal office and coordinating regional representation for ILRI offices across Africa and Asia.
Opening statements of the candidates

**Villa Alves** expressed her pleasure at being a shortlisted candidate and participating in the debate. She expressed her determination to better employ her expertise in sustainable food production to contribute to GASL with her background and experience in sustainable livestock.

**Tarawali** expressed her gratitude towards the GG for its confidence in her. She explained that she was interested in the position because she believes that sustainable livestock has much to contribute to sustainable development and the SDGs. She believes that the Global Agenda has a significant capacity as it brings together players in the livestock sector from all over the world. The opportunity to enhance the diversity richness of current and future members is an opportunity, especially in COVID-19 times, where collaboration and coordination are fundamental. It would be a great privilege to build on the achievements of the current Chair and GASL.

Four debate segments on a key GASL topic each

The candidates were asked to respond within 10 minutes to specific questions regarding different segments that had not been previously disclosed to the candidates: Segment 1 – SDGs; Segment 2 – Global threats; Segment 3 – Multi-stakeholder partnerships; Segment 4 – Fundraising.

**Segment 1 – SDGs**

GASL has adopted the UN Sustainable Development Agenda and the SDGs as its reference with a view to 2030 (next ten years). With regard to the SDGs, what do you see as the number One issue for the livestock sector?

**Tarawali** remarked that the main issue relates to communicating the sector’s diversity and complexity in relation to the SDGs, without creating confusion or being defensive of the sector. There are often many negative views about the livestock sector. To counter these, there is the need to develop a strong message that livestock has high potential to contribute to all SDGs, especially SDG 8 and SDG 17. “How to do so, without seeming to be in conflict with other parts of the world or with the view that livestock is bad for the environment or nutrition?” While these points are valid, there are also huge opportunities that need to be communicated in a balanced, nuanced and simple way. One such opportunity is the identification of common objectives, such as reduction of environmental impact through efficient and low-carbon livestock production systems, availability of safe nutritious healthy diets that include ASF, or provision of livelihoods through livestock farming and production. To benefit from multiple livestock livelihood opportunities, it is crucial to include issues of equity and fairness, ensuring that women and youth are part of that equation. Finally, regarding health, the livestock sector can make an important contribution to safe animals, people, ecosystems and environments. The starting points and the trajectory to reach the goals may vary because of the diversity of the sector around the world. If Tarawali became GASL Chair, the first issue that she would address regarding the SDGs would be the communication of these messages targeting not only livestock stakeholders but also those engaged in wider development issues.

**Villa Alves** stated that livestock has always been blamed for environmental impacts. Nevertheless, the sector can prove that sustainable livestock is not a problem but rather a solution to the environmental complexity of producing sustainable food. Livestock is probably the only activity that can contribute to all 17 SDGs, but the livestock sector’s primary issue is SDG 17. GASL is a multi-stakeholder partnership, and SDG 17 concerns this topic. “If all stakeholders are
not together, it will be more difficult to achieve the other SDGs.” Livestock can contribute directly and indirectly to each SDG. It is important to acknowledge that there are best practices that can contribute to all the SDGs. For instance, following this pandemic, three issues will be very important regarding livestock production: animal welfare, food safety and quality, and the need for more resilient agri-food systems. Without a multi-stakeholder partnership, dealing with these issues will be very challenging. If elected the new GASL Chair, Villa Alves would engage more partners, especially those missing to date.

Segment 2 – Global threats
Food systems are threatened by the double challenge of pandemic and climate change. What are the two main actions you would foster from GASL to face these threats?

Villa Alves stated that it is necessary to improve the resilience of all food systems using existing tools and developed best practices to be shared with all levels of farmers and adopted to all technologies. For instance, silvopastoral systems could be shared and implemented globally. In addition, it is fundamental to communicate such practices through better networks and partnerships with governments. GASL has the potential to do this. Villa Alves would foster the need to act and subsequently communicate better tools, practices and processes.

Tarawali said that GASL is well-positioned to be part of the solutions to endorse sustainable livestock production and face the challenges of pandemics and climate change. Connections between different stakeholders are crucial; being able to connect is fundamental in any challenge that might arise. One of the key opportunities and roles of GASL is to put all the pieces together. When talking about future pandemic-like threats, One Health is essential. Such an approach demands connections within the livestock sector, which GASL can support and strengthen through its forum. However, it also requires connections outside the livestock sector, from the environment to health. The role GASL plays will be critical. Within GASL itself, there are effective solutions, such as livestock’s role in mitigating GHG emissions or providing greater resilience to climate change, but they often remain at a small scale. GASL should foster internal communication to make these solutions available to stakeholders worldwide. Research requires funding and GASL can be key in the communication between research institutions and multilateral organizations and donors. Tarawali would adopt a holistic approach, tackling these challenges and endorsing sustainable livestock production simultaneously rather than separately.

In response to a question about how to motivate GASL partners to contribute effectively to these challenges and be active, Villa Alves stated that GASL acts as a bridge connecting all sectors. If stakeholders are connecting and thinking together, each contributing to a specific area, it will be easier for GASL to implement actions. If GASL is able to connect, assemble and show the goals and benefits of the livestock sector to the world, the opportunity exists to reach donors and obtain the funding to implement actions. Tarawali said it was a matter of value proposition with different stakeholders, showing a research organization how GASL could help scale up a solution and get it delivered on sustainable development. GASL can also provide feedback for research on what should be prioritized. As a development agent the final goal would be to address communities’ development on the ground and connect with and scale up research solutions. By connecting all stakeholders, there is a cross-cutting value proposition that is unique to GASL and ultimately raises more resources for the livestock sector.
To the question of **what could be done to involve as many livestock keepers of indigenous breeds as possible in the GASL process to protect diversity**, Tarawali replied that indigenous diversity and livestock diversity are only two of the many “pieces of the puzzle”. By engaging people involved in raising, keeping and conserving these animals, GASL would help place them in the context of broader development issues. This is important because telling a story about indigenous breeds will not resonate with people interested in food security, climate change or pandemics. However, GASL can place these issues in a wider context of development. It is vital to involve more farmers and the key is to do so intentionally. Farmers who are part of GASL would act as channels for other farmers. **Villa Alves** stressed the importance of communicating that sustainability is a complex issue, regarding not only biodiversity but also socio-economic and environmental factors. It is important to improve the use of indigenous breeds throughout the globe, but also of commercial breeds, to achieve a balance. The issue of indigenous breeds, together with other issues, is very important. The main goal would be to communicate that sustainability and sustainable livestock need to have different forms and the goals can be reached in different ways.

**Segment 3 – Multi-stakeholder partnerships**

Multi-stakeholder initiatives such as GASL are engaged in a continuous process of change and adaptation. Regarding the basic modules of GASL, the Guiding Group (GG), the clusters and the Action Networks (ANs), where can concrete improvements be made for each one?

**Villa Alves** stated that as a multi-stakeholder, GASL is in an excellent position to create diversity, while on the other hand, within such a network, there are different perceptions and interests. It is essential to develop a common mindset regarding the direction followed by GASL, to enable its progress and effectiveness. For example, the GG is very important because meetings are an opportunity to share the experiences and political situations of different countries, and this is essential for the quality of GASL activities. Clusters and the ANs could be improved; for instance, LEAP is a very important AN, and it has worked hard to develop guidelines and methods. GASL must communicate, and also prove to society, governments and multilateral organizations, that metrics that can add value do exist and ANs can develop them.

**Tarawali** said that GASL should think carefully about which issues to prioritize and address. A multi-stakeholder partnership like GASL can add value, but the real added value comes through the different approaches: issues that are very often contentious nevertheless require all stakeholders. With regard to the GG, its work has been enhanced by learning how to balance the approach of being consensual and inclusive while simultaneously being quick to adapt and responsive as new issues arise. There may be a faster way to set up responsive decision-making. In terms of the clusters, representation is not even and some of the group struggle to find their place and understand what GASL can offer them; this should be actively remedied. It is important to ensure that each AN addresses challenges that require a multi-stakeholder approach and then, in turn, brings in membership from every cluster to address the challenges. In this way the power of GASL can be harnessed through its diversity.

**Segment 4 – Fundraising**

Although GASL has always had valuable and loyal donors, insufficient financial support has been a problem since its beginning. What would you do to raise funding for GASL while maintaining its multi-stakeholder nature?
**Tarawali** replied that the fundamental part of this question is who the funders are funding: GASL as such or GASL in a wider livestock context. The sector at the moment receives a relatively tiny amount of funding, so the investments in the sector are not commensurate with its potential role in sustainable development. Communication is important: sustainable livestock solutions need to be materialized into development debates, and their importance conveyed so that they receive development funding as well as research and broader funding. This involves including livestock in global, regional and national development solutions and making sure that any resources deployed in the livestock sector are used to support the different stakeholders across GASL in delivering those solutions. The focus needs to be on raising the profile of the livestock sector, gaining interest and obtaining resources. This would mean increased resources for livestock, GASL, ANs and members in the various configurations depending on what the specific funding were for.

**Villa Alves** pointed out that in Latin America, her continent, and in academia, her field, funding is an everyday issue. She went on to say that if concrete results are to be delivered, more donors will be needed. If a concrete project, with concrete delivery and concrete results exists, then there will also be money. There is a need to work hard and communicate all the benefits of sustainable livestock for all stakeholders so that the achievements of GASL may continue. Communication is key to give visibility to the improvements made, in terms of sustainability, by farmers, industry and governments. Communication is also crucial to engage donors and obtain funding.

A question asked **whether ANs should be better supported by GASL funding to better deliver for the partnership. Villa Alves** connected to the point she had made in the previous question: that GASL can identify concrete outcomes together with ANs and stakeholders to be achieved with specific stakeholder groups. **Tarawali** stated that it is important to remember that GASL is not a funding agency. One of the real opportunities for GASL is the power to bring stakeholders together to address some of the sustainable development solutions that the livestock sector needs to be part of. Thus, GASL should use its resources to support making connections; any increase in resources should not be used to replace what individual members of GASL or members of AN would be funded for anyway. GASL’s role is to add the pieces together to make a bigger whole. GASL, functioning as a truly, consensual, balanced multi-stakeholder initiative, would be quite challenged if it were to deliberately focus on funding completely ANs.

The candidates were asked **how GASL could better interact with existing initiatives working in the sustainability sphere. Tarawali** answered that this could potentially be a role for members and ANs: if an external initiative has a theme in common with GASL, the relative AN should act as an interface. Through the membership and the AN, GASL would have the opportunity to engage with wider global initiatives. In the case of global initiatives, such as working on SDGs, GASL can draw from its membership and ANs to provide tangible examples for the relevant country or project. “Tangible examples of communicating at the global level; this is what sustainable livestock looks like.” **Villa Alves** agreed, replying that stakeholders and participants in the livestock sector within GASL should take their excellent experiences worldwide. It is not necessary to create, rather to bring out the solutions.

The speakers were asked **how to measure the success of GASL and what the short-term milestones would be to achieve the sustainability of the livestock sector. Villa Alves** answered that there are many ways to deliver and achieve the goals. The TOC initiated this year is very effective because it creates realistic and
practical targets that can be shown and reached; these targets can subsequently be measured. Often institutions do not improve because they engage with too many activities simultaneously. Tackling problems step by step and communicating activities that are achievable with the resources available is the right way to allow substantial improvements, which can be the basis for further improvements. There need to be clear responsibilities for all stakeholders, because it is easier to reach the goals if everybody has a specific role. Within GASL, while there are different perceptions and interests, improving the sustainability of livestock and communicating its benefits is a common goal. For Tarawali, a key measure for the success of GASL would be to have sustainable livestock recognized as a global development solution. Livestock is currently omitted or when it does appear, it is in a negative way (e.g. in relation to climate change). The negative aspects need to be recognized, acknowledged and addressed, but livestock should be seen as part of the solution and not just the problem. Thus, the measure of success of GASL would be its recognition among the sustainable development solutions.

Questions and discussion

The first question regarded how the new Chair would solve the potential conflict of interest between GASL and their respective current institutions. Tarawali signalled that this was one of the reasons why she had applied. There is much commonality between the mandates of ILRI and GASL, and while there could be conflict, she sees a huge opportunity for synergies. ILRI puts a lot of effort into communication and advocacy for livestock and often overlaps with GASL. Putting the two together would be a great opportunity to make something bigger. While there could be conflicts in, for example, raising resources, the main thing is to obtain resources for the livestock sector regardless of the institute. Villa Alves stated that the Chair’s role is not to impose his or her perception or interests but to coordinate all the stakeholders.

The speakers were asked whether they would be willing to look into trade-offs between efficiency and resilience, as mentioned in the regional meetings. Villa Alves expressed her thoughts on resilience and ethics to address the question. Sustainability is a complex issue with positive and negative aspects. Resilience and efficiency can work together but are different. Resilience includes, for example, systems that can cope with climate change and other issues. Those systems can persist and be efficient because efficiency means to have economic, social and environmental viability. There are many production systems with a range of technology levels, farm sizes, opinions and, as a consequence, different solutions; thus, the idea emerging in the regional meetings is a good approach. For Tarawali, the question is absolutely fascinating and should be explored, whether by GASL, a member or an AN. The approach may vary depending on the production system. For instance, with a maximum efficiency level, such as in dairy farms in the United States of America, resilience might be challenged; there is a trade-off there. Moreover, pastoralist systems are not very efficient because use of a large extent of land provides a small quantity of milk or meat. However, they can of course be useful for ecosystem management, carbon sequestration, livelihoods development and indigenous breeds; while efficiency may be lacking, resilience would be very high. Food systems have been shown to be very vulnerable; it is vital to explore how livestock can contribute to resilience without compromising efficiency, and this will vary enormously depending on the environment.

A question asked how to back up indigenous breeds and their ability to withstand endemic diseases and harsh weather conditions. Tarawali indicated that an AN is looking to restore value to grasslands and one relevant value is indigenous livestock and the local breeds that are resistant and adapted. This links
to the point made about resilience, because these breeds can contribute to ensuring resilience in the future. There is often a trade-off between high-producing animals, which require a lot of inputs, and indigenous animals, that may not produce as much but can adapt quickly when faced with a challenge. There needs to be a balance between not losing the resource and not compromising the importance of animals for providing food security, nutrition and livelihoods. Finally, the issue requires attention and imagination is required to ensure that it, and other issues, is not excluded. Villa Alves agreed and added that there are also other issues that can be highlighted in the context of sustainable livestock. There is no single solution, such as using indigenous breeds to achieve sustainability in the sector. It is vital to convey that this is just one of the solutions for a particular region or a specific production system. The question is how to add value and highlight these systems in the context of global thinking and global livestock.

Regarding the main research breakthroughs from the speakers’ institutions and how they could help in the pandemic, Villa Alves said that we need to cope with the new normal. Livestock would be at the centre of pandemic issues as all pandemic problems could start with unsafe meat consumption. The challenge is how livestock will face this in the new future. It is essential to put more resilient food systems, better food safety for all livestock chains and animal welfare on the agenda. These aspects might become crucial and it is vital to transmit GASL values and goals to society. Tarawali pointed out that ILRI, as a research organization for development, has developed an index-based livestock insurance product that helps improve the resilience of pastoralists in drylands. It uses a satellite system that measures forage, engages with governments and private sector insurance companies, and provides a payout to pastoralists when the forage index drops below a certain level. It has been shown that this effectively helps pastoralists cope with the shock of droughts, thus improving resilience. Regarding climate change, ILRI in Kenya is the only facility where GHG emissions can be measured. The team has provided new figures that are valid in developing countries and parts of Africa, and relevant if governments commit to mitigating climate change. In relation to the pandemic, ILRI has done a lot of work regarding food safety and informal markets to reduce risk in these traditional markets where 70 percent of people obtain their food.

Two further questions were put forward: how to address the issue in the global North and how to view the relationship between the regions and the global scale of GASL. Tarawali agreed that ILRI’s portfolio is directed towards the global South, but added that it cannot be addressed in isolation. As witnessed in the current pandemic, the world is globally connected. When something happens in the global South, the global North cannot be ignored and vice versa. Furthermore, in the global North, many issues are similar to those in the global South; one example is the chefs in New York facing livelihood challenges because of COVID-19. Regarding the regions, it is important to see real achievements on the ground. That is why there is a need for regional and even country chapters for GASL adopting similar principles. Without change on the ground, there will not be sustainable livestock; change is fundamental in order to deliver the message at the global level that sustainable livestock can be part of the solution. Villa Alves explained that Embrapa is the official research centre of Brazil with 47 centres around the country working in different situations. Embrapa takes decisive action on national beef systems but also on international systems, with various offices around the world. Embrapa does not distinguish between the global North and South; rather, there are three or four beef cattle systems that can be applied to each reality, taking into account resources use, such as land in Latin America, and more intensive production systems, such as in Europe, where there is a shortage.
of land. To have sustainable production systems, already-existing tools and processes need to be used: think globally but act locally. To have efficient systems, resources must be used efficiently.

A question regarded how to ensure connectedness and coordination for effective knowledge-based communication to achieve multiple SDGs. Villa Alves pointed to SDG 17, which is very clear: link all the stakeholders. The sphere of research must be connected because academia offers numerous solutions to implement in the field. Likewise, all stakeholders need to be connected so that they so that they too can provide solutions; for example, retailers can improve the sustainability of farms adding value by paying a premium to those systems that are committed to the SDGs or welfare questions. Tarawali agreed and added that GASL’s strength lies in its ability to connect different types of stakeholders to address issues related to one or more SDGs. However, it is also important to be astute about the exact focus of GASL. What is potentially contentious but requires all stakeholders to work together is delivering on a particular issue while cutting across more than one SDG. Climate change works well with resource efficiency, with a wide range of solutions and ways for uptake and scale-up depending on the context. Research delivers the technical solutions, development agencies and civil societies take to scale, and governments provide resources and investments; the key is bringing them all together.

Another question asked how GASL should support the International Year of Rangelands and Pastoralists (IYRP) initiative. According to Tarawali, this is a topic for multi-stakeholder engagement, but GASL’s network of public sector partners is valuable because the next step for the IYRP would be its approval in the Committee on Agriculture. Many partners from the public sector would be engaged, and GASL members would have the opportunity to provide information within the country context as evidence. Regarding the added value of this initiative, it would create opportunities for GASL, members and ANs to be involved in facilitating dialogue among the different stakeholders within and outside GASL. Villa Alves confirmed that GASL has representatives from many countries worldwide, and these countries have systems based on rangelands and pastoralists. They can make an important contribution to the work of FAO, helping to define how systems support the sustainable production of meat around the world.

The speakers were asked for their thoughts on how to ensure that livestock remains relevant in debates about the future of the current food systems and how to position GASL in such discussions. Villa Alves stated that this is a very important subject for GASL because many institutions promote reduced meat consumption as key for a sustainable world. Meat consumption is the basis for a healthy diet and the basis of a sustainable world. Results including metrics and numbers must be communicated to show that livestock is not a problem, rather a solution. In many parts of the world, especially in the global South, livestock is not only about agriculture; it also incorporates social and economic aspects. “The question is deeper than the message that the media without clear reference are trying to pass.” GASL can and should be the global reference for sustainable livestock and should combat the messages about reducing meat consumption. Tarawali agreed. The problem is to counter, not in an offensive or defensive way, rather with evidence. GASL is well positioned to assemble evidence from its science stakeholders, including numbers and metrics, as well as anecdotes and stories of people’s real lives to show why livestock matters and why it is a fundamental part of sustainable development. However, it is also necessary to involve GASL in discussions and debates focused on health, nutrition and environmental topics, in order to include livestock in the discussion and ensure
that GASL is a credible source of information for this nuanced message. GASL needs to be strong within, in terms of connections and knowledge exchange, but it must also excel in external communication and engagement with the media.

The candidates were asked whether they would propose a different structure for GASL, and what it would look like. Tarawali answered that GASL needs to be responsive in its decision-making, and the previous question about the media was a case in point. GASL needs to effectively present the livestock sector to counter current tendencies and present a different viewpoint, and it would be worth looking at a decision-making mechanism that could be easier and more flexible. Finding a balance with such a broad spectrum of people and voices engaged in the governance and management of GASL is the main challenge as a multi-stakeholder partnership. Villa Alves said that there are different perceptions and interests within GASL, and changing the governance will not make much difference. Having different views is positive because it creates diversity, and it is important to be able to cope with diversity. Furthermore, in order to change governance, it is necessary to consult all stakeholders and engage them in the process, should a change prove necessary.

Closing statements
Heinrich asked the two finalists to make a final statement on why they should be the next Chair of GASL.

Tarawali stated that she believes in GASL and its mandate to add the pieces together to ensure that sustainable livestock contributes to sustainable development.

Villa Alves stated that she intends to continue the excellent work started by the current Chair, the AST and GASL as a whole. She would keep working hard with full commitment to GASL as in the past, bringing her experience in science and politics to the issue of sustainable livestock chains.

The Chair thanked everybody, especially the finalists and the moderator of the day, and explained that the GG would reunite to elect consensually in a closed meeting the next GASL Chair.
GLOBAL CLOSING – DAY 4

Introduction

Ulf Magnusson, Professor, Department of Clinical Sciences, Swedish University of Agricultural Sciences (SLU) (moderator)

The Global Closing day was opened by Ulf Magnusson. The day’s programme allowed the Academia and Research Cluster to highlight information and insights on the topic of COVID-19 and sustainable livestock gained from Monday’s and Tuesday’s discussions. This led to a discussion on concrete steps that can be taken by GASL clusters, Action Networks and all stakeholders in support of the proposed actions.

Global Synthesis

Ernesto Reyes resumed the first two days of working sessions of the online MSP meeting: Day 1, the Global Opening, and Day 2, the Regional Summaries based on the four sustainability domains adopted by GASL.

Global Opening day

The Global Opening day began with the keynote speakers addressing different sustainability domains related to livestock: One Health by Keith Sumption, Livelihoods by Simplice Nouala, and Climate change by Henning Steinfeld.

One Health

It is vital to refocus attention on the health of ecosystems. There is a need for an integrated approach between animal health and production, the human sphere and the environment. The role of food safety and hygienic practices and the transmission of infectious diseases in confined places are critical and emergent issues to be addressed.

Livelihoods

COVID-19 has posed challenges within the United Nations Agenda and the SDGs. The main issue is that people in poverty will increase (from 0.82 billion to 1 billion people, mostly from rural areas). Moreover, the progress towards the SDGs will slow down, in particular five SDGs: SDG 1 No Poverty, SDG 2 Zero Hunger, SDG 3 Good Health and Wellbeing, SDG 8 Decent Work and Economic Growth, and SDG 13 Climate Action. It is necessary to take clear action, focus on how to transform small- and medium-scale mixed crop–livestock systems in developing regions into sustainable and profitable enterprises, and strengthen the resilience of small-scale livestock keepers and pastoralists.

Climate change

Climate change has been accelerated without proper actions to contain it. The livestock sector has been facing multi-dynamic challenges, including animal welfare, AMR and emerging diseases. Other challenges are emerging from the consumers’ side, including ASF replacements, sustainable food systems and sustainable diets. Possible alternatives for sustainable livestock must be integrated into a multipurpose policy framework, including natural resource efficiency, recycling, nature-based solutions and silvopastoral systems. Moreover, food consumption must be balanced with sustainable diets as a solution to climate change. Tracking progress in the livestock sector with proper metrics has also emerged as a priority. Governments need to be engaged. Responsible production and processing is vital and the private sector has an important role in the future with various initiatives and commitments.
Regional Summaries day
The regional meetings hosted more than 700 participants from eight different regions of the globe: Africa 1 (English-speaking Africa), Africa 2 (French-speaking Africa), Eastern Europe and Central Asia, Latin America, North America, Oceania, Southeast Asia, and Western Europe. During the Regional Summaries day, the regions reported the main findings and outputs of the different meetings. Ernesto Reyes summarized the regional information and approaches.

Africa 1, Africa 2, Latin America, Southeast Asia
In these regions, One Health has been recognized as a fundamental approach. It is vital to speed up new technologies and digital solutions, together with research and development activities that should be closer to farmers’ needs and policy designs. There is a need to rethink business models and develop innovative approaches for value chain consolidation, as well as adapt the role of livestock to meet the needs of a growing population, especially in regions like Africa and Asia. Finally, livestock has demonstrated a significant resilience capacity in the COVID-19 crisis, especially small-scale pastoralist production systems that are not highly dependent on external inputs.

Oceania, Europe, Eastern Europe and Central Asia, North America
In these regions, governments have tried to manage the COVID-19 crisis with public and private support. However, supply chains have had to shift their focus from food services to retail services, rapidly adopting new models and approaches. Such changes have posed challenges, as production systems forced to slow down the process have ended up holding back animals in the production units. In some instances, this practice is manageable, but in others, such as in the beef or poultry sectors, not moving animals has resulted in losses. Impacts on the supply chain concern transport restrictions, safety of processing workers, panic buying by consumers, maintenance of production levels, closure of restaurants, and closure of import and export channels. In Central Asia, smallholders were already facing serious issues prior to the pandemic.

Challenges and lessons learned
Consumers
The Global Agenda needs to be in touch with consumers. There is increasing mistrust of ASF among consumers; consumer behaviour is changing and the different consumer segments are undergoing rapid transformation. Livestock production systems need to meet these changes. Furthermore, it is important to build awareness among consumers on how food is produced. Finally, the high demand for healthy food and new forms of delivery and business models (for instance, e-commerce) during the crisis need to be taken into consideration.

Livestock resilience
It is not enough for existing livestock systems to be resilient. The transition towards sustainability and coping with sustainability challenges is also important. The role of governments is crucial, as is that of other alliances such as private–public partnerships. In addition, there is the need to reinforce sustainability frameworks with common views among all the partners of the Global Agenda, and to recognize that the role of livestock is not limited to the production of food; livestock has a role to play in the community, and in health and safety. Furthermore, reinforced, coordinated and clear communication between sectors to achieve consistent messages and strategies is essential. Finally, it is important that solutions are not only science-based but also close to farmers’ needs.
Nancy Bourgeois pointed out that the online MSP global meeting aimed to identify actions to drive the livestock sector towards more sustainable food systems, strengthen the One Health approach and enhance food security.

Bourgeois reported on the action points addressed by the stakeholders per region and globally. Each region had considered the impact of COVID-19 on the four sustainability domains and highlighted what solutions and actions already exist, where the gaps are, and what more shall be done (in the knowledge that COVID-19 is not over and these actions may be subject to modification).

The action points identified for GASL varied between countries: the regional groups responded in different ways and not always according to the sustainability domains.

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Action Points</th>
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<tbody>
<tr>
<td><strong>Academia and research</strong></td>
<td>• Seek digital solutions to promote a multidisciplinary One Health approach</td>
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<td></td>
<td>• Seek a solution for resilience</td>
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<tr>
<td></td>
<td>• Promote research solutions and partnerships</td>
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<td></td>
<td>• Provide evidence</td>
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<tr>
<td><strong>Non-governmental organizations</strong></td>
<td>• Identify and support local capacities</td>
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<td></td>
<td>• Provide contingencies or better resilience</td>
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<td></td>
<td>• Advocate policies</td>
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<tr>
<td></td>
<td>• Provide local evidence under COVID-19 circumstances</td>
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<tr>
<td></td>
<td>• Seek a livestock solution</td>
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<tr>
<td><strong>Private sector</strong></td>
<td>• Scale or tailor packaging</td>
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<tr>
<td></td>
<td>• Distribute inputs</td>
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<tr>
<td></td>
<td>• Provide innovative business models</td>
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<tr>
<td></td>
<td>• Rebuild markets and value chains</td>
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<tr>
<td><strong>Social movements</strong></td>
<td>• Ensure inclusion to ensure that no one is left behind</td>
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<tr>
<td></td>
<td>• Support advocacy</td>
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<tr>
<td></td>
<td>• Engage across different scales and production systems</td>
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<tr>
<td><strong>Donors</strong></td>
<td>• Go beyond agriculture-wide issues and include humanitarian issues</td>
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<td></td>
<td>• Support the sector</td>
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<td></td>
<td>• Inform priorities</td>
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<tr>
<td></td>
<td>• Invest in new digital solutions</td>
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<tr>
<td><strong>Multilateral and intergovernmental organizations</strong></td>
<td>• Enhance collaboration for the One Health solution</td>
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<tr>
<td></td>
<td>• Provide evidence and messages for advocacies</td>
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<tr>
<td></td>
<td>• Strengthen and rebuild resilience at the local level</td>
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<tr>
<td><strong>Public sector</strong></td>
<td>• Support multi-stakeholder engagement</td>
</tr>
<tr>
<td></td>
<td>• Provide policies and resources for an enabling environment from small to large scale and in the private sector etc.</td>
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### Africa 2 French-speaking Africa

<table>
<thead>
<tr>
<th>Field</th>
<th>Action points</th>
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</table>
| **Advocacy** | Position livestock at the centre of the political discussion at the regional level  
|           | Sensitize politicians on the role and importance of pastoralism for the dynamics of the sector  
|           | Promote investment in pastoralist systems to improve the mobility of pastoralist livestock (government)  
|           | Highlight dairy as an essential product in the development of the livestock sector (prominent in this part of Africa)  
|           | Highlight the strengths of local breeds (local biodiversity breeds) |
| **Information** | Support strengthening the education of populations in human and animal health (related to the One Health approach)  
|           | Provide evidence and inform people (to avoid mistrust and misinformation) |
| **Network** | Highlight the importance of a strong, coordinated and regional strategy  
|           | Identify stakeholders in the sector, including the informal sector  
|           | Reflect on the organization and function of countries throughout the value chains and potentially harmonize them (private sector and governments)  
|           | Better integrate local structure in projects and crisis management (NGOs, associations, municipalities)  
|           | Strengthen the dialogue between Sahelian countries and coastal countries on cross-border commercial mobility of livestock (public sector) |
| **Digitalization** | Support the development of digital applications and online sales in pastoralist settings |

### Eastern Europe and Central Asia

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<thead>
<tr>
<th>Action Points</th>
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<tbody>
<tr>
<td>Identify barriers to invest in preparedness for disease outbreaks</td>
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<tr>
<td>Seek solutions to prevent/reduce impacts</td>
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<tr>
<td>Strengthen the resilience of livestock production</td>
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</tbody>
</table>

- Adopt a holistic approach (to deal with different forms of shocks and impacts, at different spatial and temporal scales)  
- Address all levels and supply chains, including farm inputs (e.g. shortages)  
- Build resilience and foster prevention instead of dealing with the impacts  
- Reduce dependency on outsourced farm inputs, whenever feasible  

- Identify investment opportunities leading to multiple positive effects:  
  - sustainable economic growth  
  - resilience to crises and disasters  
  - reduction of negative environmental externalities  
  - strong contribution to poverty reduction, especially among smallholders and family farmers  

- Broaden the scope and time frame of the economic assessment of planned interventions  
- Capture the aggregated and long-term benefits of prevention measures (economic assessment)
<table>
<thead>
<tr>
<th>Latin America</th>
<th>Action Points</th>
</tr>
</thead>
</table>
| Farmers       | • Make a transition to more sustainable systems (agroecological approach)  
• Increase the use of and access to digital tools  
• Build partnerships for the future  
• Support capacity building (e.g. training courses)  
• Adopt livestock food values for consumers and the whole of society |
| Private sector | • Build alliances between chain actors  
• Highlight the capacity to provide healthy food (essential for society during crises)  
• Provide incentives for sustainable livestock systems  
• Apply a systemic and holistic research approach |
| Public sector  | • Support transition towards more sustainable systems  
• Improve development of and access to digital tools  
• Promote the importance of healthy livestock products (in line with industry) |
| Academia      | • Improve connections between research centres and livestock value chains  
• Improve research on and develop pasture-based systems  
• Apply a systemic and holistic approach taking into account the environment, animal welfare, biosecurity and silvopastoral systems  
• Use scientific results to formulate policies |

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<tr>
<th>Oceania</th>
<th>Action Points</th>
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</table>
| • Work as one and promote collaboration (strong element during the crisis)  
• Adopt a government response that brings credibility and underpins assurances for sustainability (acting appropriately is crucial to overcome the crisis and move towards sustainability)  
• Maintain communication to ensure a robust process for conveying information and to facilitate response as things rapidly change (with emphasis on the delicate task of communicating approach towards society)  
• Gain a deep understanding of relationships across supply chains  
• Recognize the clear connection between consumers’ trust in sector sustainability frameworks and the positive response to COVID-19  
• Acknowledge the role of the World Trade Organization and the rise of protectionism and nationalism (region highly dependent on international trade), as COVID-19 may increase the challenges of global trading systems  
• Consider COVID-19 an opportunity to think about additional scenarios to plan for the future (e.g. feed shortages, problematic access to market) |

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<tr>
<th>Western Europe</th>
<th>Action Points</th>
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</table>
| • Develop connected circularity with the livestock sector  
• Address societal concerns related to livestock  
• Develop scenarios of economic impact  
• Develop connectivity, finding answers together  
• Promote transdisciplinarity  
• Share information  
• Highlight Europe’s guiding role for expertise in sustainable production and food production resilience (EU value chains are resilient and cope with the crisis relatively well)  
• Improve coordination of efforts |
- Dedicate more resources to prevention

**North America**

**Action Points**

- Maintain effective communications key to overcoming crises
- Foster strong relationships (based on trust)
- Develop risk management protocols
- Recognize the role of governments to “weather the storm” (financial services, risk insurance schemes etc.)
- Highlight the role of agriculture as an essential service
- Allow more structural flexibility
- Foster healthy ecosystems to mitigate exposure and vulnerability in the future (NGOs)

**Southeast Asia**

**Action Points**

- Support early detection, rapid response, sustained control
- Increase attention to environmental health
- Support traditional systems, smallholders and pastoralists
- Support short value chains, local systems, processing, storage and marketing (better infrastructures)
- Improve surveillance (ethical), diagnostics, reporting
- Promote a One Health approach
- Build platforms for collaboration between farmers, partners, research institutes, governments
- Increase awareness/education on disease across supply chains, especially small farmers, butchers, traders

**Summarized opportunities for the future on which GASL must build**

- Livestock remains a crucial component of a **systems approach**.
- **Preparedness** and cost-effectiveness are essential.
- Governments need to invest money to **anticipate** crises rather than overcome them.
- Business models must be rethought for more **resilience** (e.g. smaller scale, systemic approaches).
- A **holistic approach** is needed to move towards more sustainable systems.
- Identification of **barriers** is vital to move towards more resilience and sustainability.
- **Dependency** of producers must be reduced.
- Sound policies are required based on **scientific results**.
- A **One Health approach** is essential (not only for human and animal but also for **planetary health**).
- Dialogue and **coordinated solutions** must be found between stakeholders.
- **Regional GASL chapters** play a vital role.
- Markets must stay open in times of crisis and **trade agreements** are essential.
- Trusted supply chain **partnerships** must be built committed to sustainability frameworks.
Questions and discussion
The first question asked how to get scientists working with farmers to reach solutions. Reyes answered that GASL needs to have a farmers’ representative to express their position. This is an urgent requirement in order to ensure their representation.

Another question concerned the role of GASL to advocate for pastoralists. Bourgeois pointed out that GASL’s role is to communicate, based on evidence, the strong and weak points of pastoralists to make them more visible to policymakers and governments.

To a question about the vulnerability of international trade and the tendency to refocus on shorter value chains, Bourgeois answered that regional trade did not come to a halt in all regions; for instance, in the EU, the chains worked very well. However, at the same time, there was a shift towards consumption of local and fresh produce, as if consumers suddenly had more trust in local. There is a need for more research into consumer behaviour with regard to shorter value chains in crisis times.

Reyes was asked to elaborate on the resilience of existing systems that need to transition to sustainability. There is a need to discuss smallholders, in terms of resilience and how to adapt the systems to be more sustainable. This requires the establishment of a metric to measure the current state of the systems and set a target to estimate the progress.

A further question regarded the establishment of possible GASL regional initiatives and platforms for One Health work. The Chair pointed out that the need for regional platforms was not a new issue, but it was becoming more pressing. Regarding the One Health approach, while diverse situations and different platforms must be taken into account, interconnection is vital because of the transboundary nature of infectious diseases. The results should link to already existing systems addressing One Health.

In response to a question about how to react to media pressure and communicate better, Reyes stated that a platform should be established and a message agreed. For effective communication, it is essential to present evidence and impacts on the livestock sector and convey the importance of the sector for social development. Another key step would be to develop an efficient communication strategy reaching out to consumers and the wider public outside GASL.

Regarding the tension between resilience and efficiency, Bourgeois pointed out that efficiency relates to preparedness for a crisis; namely, financial resources must be used more efficiently to anticipate a crisis and prepare measures to prevent devastating impacts. As for resilience, the challenge lies in identifying a metric and indicators. Rogerio Mauricio from the audience suggested looking into the efficiency gap in natural resource use.

A final question concerned the limitation of the GASL mandate related to wildlife and ecosystems in the One Health approach. Bourgeois said that this important new concept needs discussion. Emerging diseases have always been important but there is a tendency to forget about them once the issue is resolved. COVID-19 is a wake-up call: such pandemics will come again and it is more important than ever to investigate and identify links between ecosystems.
Concluding remarks (Ulf Magnusson)

Lessons from Covid-19

- Aggravating existing challenges/issues for the sector
- Disclosing the vulnerability throughout the animal source food system – varies by region, economic setting, farm size, dependence on export/import, etc. - “winners” and “losers”
- Affecting the livelihoods of poor livestock farmers
- The importance of One Health and a more resilient livestock production
- Handling disinformation

Possible GASL actions for building a better future

- Considering the comparative advantage of GASL’s niche
- One Health – yes, but how wide is GASL’s mandate?
- Dissemination of evidence-based information – as a multi-stakeholder body, we have a sound and broad perspective
- There is no glory in preparedness - how to make investments in disease prevention and resilient food systems happening?

Closing and welcome to the new selected GASL Chair

The Chair announced that on 17 September 2020, after the externally moderated public debate of the two finalists, Shirley Tarawali was elected as the new GASL Chair with the consensus of 22 GG members.

Tarawali is currently the Assistant Director General at ILRI. Her responsibilities include strategy, planning, partnerships, communications and knowledge management, as well as institutional management, decision making and representation. She is also Secretary of the ILRI Board of Trustees. She led an ILRI research theme with responsibilities across sub-Saharan Africa and Asia, including scientific coordination and leadership of a portfolio covering livestock, environment, animal nutrition and natural resource management.

She has over 30 years’ experience implementing and leading research for development in Africa and Asia. Tarawali holds a PhD from the University of London, United Kingdom. She participated in the meeting in March 2010 in Zollikofen, Switzerland, where the idea of GASL first emerged (launch of the publication, Livestock in a changing landscape) and has been with GASL ever since, attending seven of the nine MSP meetings. She was a GG member for the Multilateral and Intergovernmental Organizations Cluster in the task force to develop the GASL Action Plan 2019–2021 and the TOC for GASL in 2020. She was the lead author for the input paper, Innovation for sustainable livestock: Livelihoods and economic growth, for the Ninth MSP Meeting held in Manhattan, Kansas, United States of America, in 2019. She has moderated multiple GASL events and participated in the organizing committee for the Seventh MSP Meeting held in Addis Ababa, Ethiopia, in 2017.
Tarawali introduced herself and thanked everybody for the confidence given. She congratulated the current Chair, Schneider, for the key role in putting livestock on the global development stage, and thanked the AST, colleagues in GASL and ILRI, stakeholders, investors supporting GASL, and Fabiana Alves Villa and Walter Oyhantcabal. She said that she looks forwards to building on the strengths of GASL, harnessing the power of the diverse membership and stakeholders and including and connecting with more actors. She concluded that a sustainable livestock sector would contribute to sustainable development, not least to construct resilient healthy and inclusive food systems of the future, starting with the actions identified during the online MSP meetings. The challenge begins and she looks forward to working with the support and engagement of GASL as a whole.

Concluding remarks
The GASL virtual multi-stakeholder partnership meetings took place from 31 August to 18 September 2020, with 8 regional components, over 600 registrations and 400 participations, including more than 50 persons (Guiding Group and Action Network members, GASL partners and others) involved in the organization and running of the meetings. The regions successfully organized and engaged regional components and actors from GASL clusters, Action Networks and other livestock stakeholders. The four global sessions from 14 to 18 September recorded 220 registrations and an average of 110 participants in a single session, making this the largest GASL event in terms of involvement of members and interested participants.
The GASL virtual MSP meetings showed very prominently that livestock remains a crucial and relevant component in all food systems. Resilience has become an important dimension for consideration by GASL. The One Health approach is also of great importance, and GASL may decide to address it in close collaboration with organizations such as OIE, FAO, WHO and ILRI in the near future. Multi-stakeholder processes are key and, therefore, GASL has become even more important. Interesting is the proposal for GASL regional chapters in Africa and Latin America to be discussed and strengthened, considering that GASL has always advocated for region-specific solutions. For example, regional meetings have already taken place in Ukraine and Brazil, and GASL has supported the Mongolian Agenda for Sustainable Livestock; global MSP meetings have always had regional components. For these reasons, GASL is well placed to tackle the challenges ahead.
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