Regional consultation on multi-stakeholder collaboration to strengthen sustainability and resilience of livestock systems in South and Southeast Asia

ICIMOD (Kathmandu), 5-6 October 2023

The Regional Workshop on multi-stakeholder collaboration to strengthen sustainability and resilience of livestock systems in South and Southeast Asia took place at ICIMOD (International Centre for Integrated Mountain Development), Lalitpur Nepal on 5-6 October 2023.

Objectives of the Workshop

- Understanding drivers of change: Explore the principal drivers of change in South and Southeast Asian livestock production systems and assess their impact within the context of the GASL sustainability domains
- Mapping multi-stakeholder partnerships opportunities: Identify areas where MSPs are needed to develop practice and policy solutions that address the challenges posed by these drivers
- Regional collaboration: Foster collaboration and knowledge sharing among stakeholders, including policymakers, researchers, practitioners, and industry representatives, to strengthen regional efforts toward resilient and sustainable livestock systems including, for those interested, a road map to the International Year of Rangelands and Pastoralism 2026

Expected outputs

- Enhanced understanding of the interplay between drivers of change and their implications for livestock systems within the GASL sustainability domains
- Identification of priority areas for MSPs to develop and implement practice and policy solutions for sustainable livestock production
- Strengthened regional collaboration and partnerships among stakeholders, contributing to the shared goal of resilient and prosperous livestock systems including, for those interested, a roadmap towards the International Year of Rangelands and Pastoralism 2026
- A meeting report that will describe in detail the main take away messages

Participants

The workshop brought together a diverse group of participants, including policymakers, researchers, practitioners, herders and farmers. Over 40 people attended in person and about the same number had registered online.
Programme and Highlights

The opening session on Day 1 started with a welcome from Dr. Pema Gyamtsho, Director General of ICIMOD. Dr. Gyamtsho, highlighted the significance of livestock, emphasizing their cultural and practical importance in daily life. He also called for increased attention to livestock especially in high mountain areas and also stressed the need for conserving genetic resources. He also spoke about learning from other regions for livestock improvement.

This was followed by a welcome note from Dr. Shirley Tarawali, Chair of GASL, where she shared more on the critical role of regional consultations in understanding and addressing the drivers of change affecting livestock systems across four essential sustainability domains: food and nutrition security, health and animal welfare, livelihoods and economic growth, and climate and natural resource use. She highlighted the need for preparedness and responsiveness to effectively tackle these drivers. She urged for collaborative efforts, knowledge sharing, and innovative strategies that can enhance the resilience of livestock systems and promote sustainable practices.

This was followed by Key note speeches by different experts on the key drivers.

The first keynote speech was by Prof Long Ruijun, from Lanzhou University, China who set the stage by emphasizing the importance of multistakeholder collaborations to strengthen sustainability and resilience of the Asian highlands. He focussed on rangelands in the area and the importance of the yak as a key livestock species to preserve both the biodiversity as well as livelihoods in the region. He highlighted the diverse benefits provided by rangelands, which include environmental services, plant production, and animal production. He also reflected on the major challenges faced by Asian highlands and emphasized that multi stakeholder partnerships like GASL and the International Year of Rangelands and Pastoralists (IYRP 2026) served as important platforms to address these challenges which are shared by the region which geographically straddles several neighbouring countries. He spoke about initiatives such as the establishment of an Asian highlands pastoralism network, the organizing of festivals for meaningful regional exchange and developing value chains for rangeland products.

The next speaker was Dr Serge Morand, Professor Mahidol University, Thailand and representative of the One health High level Expert Panel. Prof Morand made an online presentation. In his presentation he addressed the critical nexus of health, agriculture, livestock, and biodiversity within the context of the "One Health" approach. He emphasized the need for international initiatives to reduce pandemic risks at their source by implementing a comprehensive strategy, including the five key pillars of preventing...
zoonotic disease emergence. Prof. Morand also highlighted the role of agriculture in human infectious diseases and advocated for urgent action. Amongst his suggestions were for achieving this were a reduction in meat consumption and promoting grassland and eco-pastoralism practices.

The third keynote address was by Dr. Scott Newman Senior Animal Health & Production Officer at the FAO Regional Office for Asia and the Pacific. His speech focussed on Animal Health and Production South and South East Asia and the challenges posed by transboundary diseases. He spoke about several disease of the region including ASF, Lumpy Skin Disease, Avian Flu, FMD and spoke about the challenges especially because of trade in the region and large porous borders which saw animal movement. He spoke about the importance of prevention, early warning and risk assessments, early detection and rapid response livestock movement along value chains, livestock wildlife interface, markets formal and informal.

Following this, Dr. Rewati Raman Paudel, Secretary of Ministry of Agriculture and Government of Nepal stressed the importance of identifying practical recommendations and sustainable solutions for building resilience in farming practices. He suggested that the concept of "One Health" approach be widened to not only include human and animal health but also the importance of plant and soil health, recognizing their vital role in creating a more comprehensive and resilient agricultural system.

Mr. Ken Shimizu, the FAO Representative for Nepal and Bhutan wrapped up the session by highlighting critical factors such as outmigration, feminization of agriculture, water scarcity, and natural disasters, which are impacting the livestock sector especially in the mountainous regions. He highlighted the need for transformation in agro-food systems to address these challenges. He also reminded the group that livestock are a significant source of greenhouse gas emissions (GHG'S) and the need for caution while trying to balance the increasing global demand for protein.

The next session had thematic presentations

The first was by Dr. Mehroosh Tak, Senior Lecturer in agribusiness at the Royal Veterinary college, London. Her presentation focussed on consumption and the role of animal source foods in improving nutrition. She touched upon changing dynamics in consumption patterns brought about by the commercialisation of poultry and also the gendered aspects of animal-source food consumption.

Dr. Tashi Yangzome Dorji, the Director of the Department of Livestock in Bhutan, presented on the "One Health" perspective, addressing the interconnectedness of human, animal, and environmental health within the context of livestock. She spoke specifically of regional challenges and specific challenges.
faced by a small landlocked nation like Bhutan. She highlighted local initiatives which used a multi
stakeholder approach such as the immunisation of animals in a locality and the need for partnering with
a wide group of stakeholders including young people and farmers.

Dr. Veerasamy Sejian, Professor from Rajiv Gandhi Institute of veterinary education and research, India
delivered a comprehensive presentation on climate change and livestock production: current scenario
and way forward. He covered a wide range of subjects including merging technologies and their uptake.
He spoke about the different possible measures to be taken to adapt to climate change including the
importance of local breeds, local fodder, animal housing, feed additives. He shared the title of several
publications he has written as well as information being done on local breeds at a research facility which
he supervises

Group Work

Following this session participants were divided into four groups for group work. Each group was asked
to explore the principal drivers of change in South and Southeast Asian livestock production systems and
assess their impact within the context of the GASL sustainability domains namely 1) Livelihoods and
economic growth; 2) Food and Nutrition Security; 3) Animal Health and Animal Welfare; and 4) Climate
and natural resource.

Key points emerging from the group work were:

- South and Southeast Asian livestock production systems are being impacted by climate and
  environmental change, affecting the health and productivity of livestock systems.
- Antimicrobial resistance and emerging infectious disease are affecting livestock systems, particularly
  sedentary livestock systems, creating new threats to livestock and human health.
- Rangeland degradation, loss and shrinking of grazing lands, encroachment by invasive species,
  increased livestock predation, outmigration, lack of access to services and markets, extreme
  weather events, emerging threats of disease and restrictions on traditional cross-border movements
  due to geo-political changes in the region are affecting Asian highland pastoral systems and cultures.
- Climate change especially heat stress, drought, heavy snow and floods is affecting livestock systems
  in South and Southeast Asia, leading to mortality and reduced productivity
Panel Discussion

This was followed by a panel discussion where experts from Asian countries Bangladesh, Myanmar, Laos, Indonesia, Pakistan, Nepal, and Bhutan discussed the critical drivers of change in the livestock sector. The panel highlighted the need for collaborative efforts. They spoke about the need for strategic investments in the livestock sector, particularly in areas such as border control when transporting animal or animal products, livestock vaccination, knowledge and experience sharing of good practices as well as sharing of experiences and systems which do not work.

Group work

Day 2 began with the delegates again working in groups to deliberate on multi-stakeholder partnerships and identify areas where MSPs are needed to develop practice and policy solutions that address the challenges posed by these drivers.

Some of the key points which emerged were

- Developing and sharing testing facilities, surveillance methods, awareness, and clear policy directions for interventions especially for emerging and transboundary zoonotic disease.
- Disease surveillance and vaccination along wildlife corridors which may be across borders (elephants moving from India to Bhutan and Nepal and vice-versa) and from informal and unregulated cross border trade in cattle for example from India and onwards to Bangladesh and further for diseases such as brucellosis, FMD, ASF, LSD, and glanders.
- Awareness drives on new diseases and their transmission, compliance with regulations, and systems to help small farmers access veterinary health services and report disease to authorities.
- Coordinated mass vaccination for eliminating key veterinary disease risks (PPR in Bangladesh), involving volunteer networks, government agencies, local communities, NGOs, and training for various actors.
- Developing participatory livestock masterplans – to incorporate perspectives that may otherwise be missed, such as smallholder perspectives, pastoralists, gender, and youth (ILRI in Ethiopia, Kenya, and some states in India)
• Livestock genetic improvement at local government level through dedicated budgetary allocation and involving private sector, community organisations, technical experts, financial institutions, insurance, and line agencies (Nepal example).
• Public-private partnerships for addressing key disease threat – Goa, India model – on mission mode and bringing together various stakeholders for elimination of rabies by 2030.
• Government, NGO and other stakeholder partnerships to ensure that no one is left out in enumeration and policy – pastoralists and livestock census case from India (2021).
• Value chain development, involving handholding and capacity development of farmers, with clear roles for various stakeholders (Rangeland Policy Bhutan) and also for dealing with human-wildlife conflict, especially livestock depredation, involving line agencies, insurance, local governments, NGOs, and herders.

The participants also raised a cautionary note about being aware of the limitations of multistakeholder platforms for marginalised groups – some groundwork was necessary to gather their views and concerns as well as prepare them for participating in multistakeholder partnerships in an equal way.

The group also felt regional collaboration is needed for

• Policy and practice sharing – for co-learning, consistency in approach and application among HKH countries for addressing common threats, animal trade routes, transboundary protected areas, and disease surveillance and reporting.
• Exchange of germplasm for genetic improvement, livestock health and vigour, and productivity – such as yak genetic exchange between Bhutan, India, and Nepal.
• Create platforms for knowledge sharing and exchange at regional level. For instance, Asian Highland Pastoral Network that can comprise of followings:
  • Regional networks and platforms for yak herders across the HKH, building on national federations and networks, to articulate their concerns and issues on the global stage – such as the IYRP 26. Likewise, for camel herders.
  • Creating an Asian Rangeland Society that include wider stakeholders engaged in rangeland research, policy and practices
  • Network of industries and entrepreneurs specializing in pastoral systems, develop entrepreneurship related to pastoral systems, networking for yak value chain, medicinal plants, and ecotourism.
• Opportunities to collaborate on mainstreaming the one health approach across sectors, consistency in application of approaches and protocols across borders, and sharing of best practices.
• Develop knowledge products such as a book on the status of rangelands and pastoralism in the HKH, a manual for pastoralists, and sharing of best practices, and valuation of rangelands for the multiple services they provide.
• For wider engagement, organise festivals and sporting events for pastoralists, to bring them together for exchange and learning.

Summary

Pastoralism and small animal herding systems are still widely prevalent especially in South Asia.

South and Southeast Asian livestock production systems are being impacted by different drivers - climate, health, socioeconomic and environmental change, affecting livestock production systems.

Transboundary disease, emerging diseases and antimicrobial resistance affecting livestock production systems, particularly sedentary livestock systems, creating new threats to livestock and human health.

Asian highland pastoral systems and cultures are being particularly affected by rangeland degradation, loss and shrinking of grazing lands, outmigration, lack of access to services and markets,

Feed availability, shrinking land resources, matching production and demand of livestock and livestock products, poor availability of vaccines and technologies to manage livestock production systems are big concerns

Priority Areas for action

Policy for the region addressing region specific concerns.

Programmes for containing livestock diseases especially emerging diseases such as Lumpy Skin, ASF and zoonotic diseases including older and now neglected ones such as Brucellosis and glanders

Policy for the preservation and maintenance of Rangelands

Capacity Building at all levels, Livestock departments, NGO’s, communities, farmers

Technology development and sharing of vaccines, apps dealing with livestock, feeding regimes, housing especially to deal with climate change.

Yak, Mithun, buffalo and Camel, are important livestock species in the region and need attention

Research on Livestock products, by-products, value addition
Regional Collaboration examples

ICIMOD itself is an excellent example of a Multi stake-holder partnership

Publication on HKH Assessment of Rangelands and Pastoralism


Projects and programmes for addressing priority areas such as a regional One Health approach

Local initiatives for vaccinating and achieving vaccination targets such as eradicating PPR by 2030