

Dairy Asia

The Quest for Sustainability

Background

Asia has seen a remarkable growth in the production and consumption of milk and milk products over the past decades and has now overtaken Europe as the world's largest milk producer. However, although domestic production has responded to growing demand, it continues to fall short of aggregate demand and most countries in Asia are confronted with increasing dairy import bills. According to recent OECD-FAO Agricultural Outlook estimates the demand for milk and milk products in the region will reach almost 320 million tonnes by the year 2021, which means the region will need to increase milk availability by another 50 million tonnes within this decade.

Two more characteristics of Asia Pacific region are of specific relevance in the context of growing demand for milk and milk products.

1. First, the region is home to two thirds of the world's poor and undernourished people. Given that milk is a good source of energy, protein, vitamins and minerals, a daily glass of milk for Asian children can significantly boost their nutritional levels.
2. Second, over 80 percent of dairy animals in the region are raised by small-scale farmers who are a critical and unique ingredient in the region's dairy landscape.

The existence of a vibrant smallholder-managed dairy sector combined with a favorable medium term market outlook is good news since the poor generally tend to be much more important in smallholder dairy production than in crop production. Furthermore, animals are typically more equitably distributed than land in many of these areas, and dairying is also more labour intensive than crop production and provides a remunerative outlet for family labour. These characteristics imply that growth in smallholder dairy can have a more direct and greater impact on poverty reduction. Thus, if production can match the growth in demand, dairying can emerge as an engine of poverty-alleviating growth with all other nutrition related benefits.

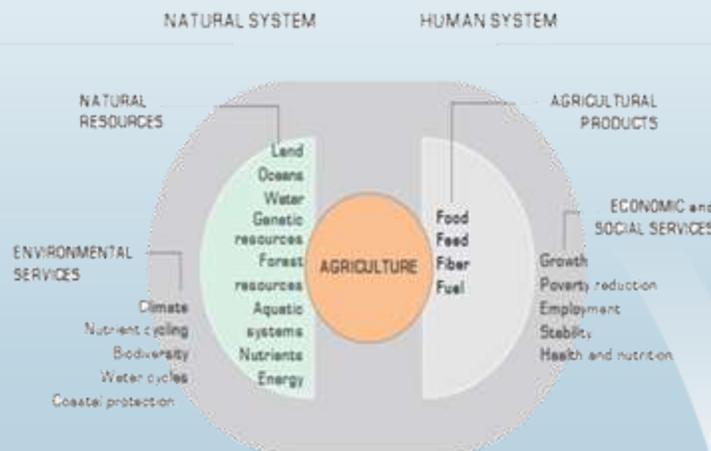
At the same time, there are growing concerns about resource scarcity, growing pressure on feed / natural resources, climate change and the need for more equitable

development. Farmers worldwide face the challenge of producing more food with fewer resources while also addressing climate change and impacts on ecosystems. The agriculture sector in general is under pressure to increase the efficiency of natural resource use to meet society's growing food and environmental needs. For the dairy sub-sector, this means that the economic agents along the entire dairy value chain must adopt technologies and management practices that can facilitate integration of environmental health, economic profitability and social and economic equity goals.



Transition to a more sustainable path must however consider sustainability in its full complexity encompassing all its pillars—economic, ecological, and social and recognizing the interface function of agriculture between human and natural systems.

The Sustainability Principle



Any solution that ignores livelihoods cannot be sustainable

T Nanda Kumar
Chairman

National Dairy Development Board of India

Partial solutions will not produce the desired results. For example, any efforts towards conservation that ignore the need for economic development, food security and livelihoods are unlikely to succeed. Conversely, socio-economic development will not be sustainable if it does not maintain the ability of the ecosystem and society to adapt to short and long-term changes. This complexity necessitates consideration of sustainability as a societal issue and requires integrated efforts by a wide range of stakeholders to capitalize on the strength of dairy production systems in Asia and to minimize the potential negative impact of rapid growth in demand and supply of dairy products in the region. It is also imperative that such efforts be realistic, equitable, and conscious of the region's ecological, socio-economic and cultural dimensions.

Dairy Asia: Towards Sustainability; May 21-24, 2014, Bangkok

To discuss and debate these issues, promote collaboration and knowledge exchange among relevant national and international agencies and to discover the ways of addressing future challenges, FAO Regional Office for Asia and the Pacific (FAORAP), together with Animal Production and Health Commission for Asia and the Pacific (APHCA), the Animal Production and Health Division of FAO (AGA), the Global Agenda for Sustainable Livestock (GASL), Dairy Farming Promotion Organization of Thailand (DPO), Department of Livestock Development (DLD), Royal Thai Government, and other partners, organized the Regional meeting "Dairy Asia—Towards Sustainability" in Bangkok on 21-23 May 2014. The meeting was attended by about 90 participants from over 20 countries comprising stakeholders from governments, national and international research agencies, civil society organizations, multilateral institutions, think tanks, private sector and regional and global networks. The meeting provided a platform to share experiences, debate issues of key concern, and provide guidance for the nature of required response in different countries and growth scenarios. The meeting was structured around three thematic areas—(i) Natural Resources and the Environment, (ii) Growing feed and fodder scarcity and the required response, and (iii) Food security, rural livelihoods, public health and human nutrition. The chosen themes reflected the need for a multifaceted response to support sustainable growth of the Asian dairy sector.

The meeting recognized the growing importance of Asia in the global production and consumption of milk and the changing landscape of the dairy sector. In order to guide dairy sector development in the region and to capitalize on the knowledge and experiences from different countries, the meeting recommended (i) development of a Dairy Development Strategy Framework paper, and (ii) establishment of a multi-stakeholder platform to facilitate regional cooperation and collaboration. There was

consensus that such a platform would add substantial value towards promoting ground level action in pursuit of sustainability objectives. The elements of such a platform — identification of willing partners, agreement on an organizational structure, commitment of resources, monitoring and accountability mechanism etc. — must however be discovered through an open, voluntary and iterative process.

Following the meeting, a multi-stakeholder drafting group prepared the draft strategic framework paper. The paper was peer reviewed and shared with Dairy Asia meeting participants for comments. Following the first revision, an open e-consultation was held during 15-25 October 2014 to invite further comments from the stakeholders at large.

It is not enough that we recognize and talk about these challenges. We need to take concrete action. We must work closely together in dealing with these challenges. For this to happen we need a platform for coordination of self-determined collective action. A platform whose members would be committed to the ideals of collaboration and mutual assistance. FAO remains committed to working with all stakeholders and I hope together we can make visible contributions towards improving livelihoods and nutrition.

Hiroyuki Konuma
Assistant Director General
FAO Regional Office for Asia and the Pacific

From Bangkok to Anand; Concept to Action

March 23-26, 2015

Following the finalization of the strategy document, FAO RAP co-organized another meeting on the campus of the National Dairy Development Board (NDDDB) in Anand, Gujarat, India, with the objective of (i) Endorsing and Adopting the Strategic Framework Paper for Sustainable Dairy Development in Asia, and (ii) to discuss and agree on the structure and processes of Dairy Asia platform. The meeting was hosted by NDDDB and supported by FAORAP, APHCA, and the GASL. This meeting brought together multi-stakeholder representatives from the government and non-government agencies from over 12 countries in the Asia Pacific region as well as representatives of international agencies such as the Bill and Melinda Gates Foundation, the World Bank, the International Livestock Research Institute etc.

The meeting reviewed the strategy paper titled “Elements of a Regional Strategy for Sustainable Dairy Development in Asia” and discussed the potential organizational architecture of the Dairy Asia Platform. A number of countries made official country statements, unanimously endorsed and adopted the Strategic Framework paper and issued a joint communique in support of the principles outlined in the paper (Annex 1). The participants also worked together to identify the basic structure and the core functions of the Dairy Asia Platform and reached a consensus on the key elements (see Box 1 for the basic structure and the core functions as identified by the stakeholders).

Challenges and the next steps

Box 1: Dairy Asia: A Platform for Dialogue, Collaboration and Advocacy

The Vision

A Socially and Environmentally responsible Asian Dairy Sector that enhances rural livelihoods, improves nutrition, and contributes to economic prosperity

Core functions

1. Facilitate knowledge and information exchange about dairy development across Asian countries
2. Support institutional development for dairy development in Asia
3. Support Policy and Strategy in support of dairy sector development in Asian countries
4. Advocate for and broker investment partnerships in dairy development
5. Facilitate collaborative R&D activities in support of sustainable dairy development

Structure and Governance



Membership open to those who sign on and subscribe to the vision and core values of the platform

There is palpable excitement and credible stakeholder commitment in the region to the notion of sustainability and the idea of Dairy Asia platform. All country delegates present in the meeting endorsed the strategic framework paper and agreed to adopt the paper as a key guiding document towards supporting dairy sector policies and activities in their respective countries. The countries with relatively more advanced dairy systems (India in South Asia and Thailand in Southeast Asia) are also committed to helping other countries in the region by sharing their experiences, expertise and technical knowhow in the true spirit of South-South cooperation. In addition there are a number of opportunities to promote joint and collaborative research for advancing the cause of sustainable dairy development in the region.

Despite these opportunities and commitments, however, the key challenge remains on how to mobilize resources for supporting the platform activities including the secretariat function. While some of the larger and more established regional stakeholders (NDDDB and APHCA, for example) may be willing to provide limited in-kind support to further steer the process, a more successful and sustainable culmination of this process requires identification of potential investors who might be willing to provide incubation support towards nurturing the platform through its early stages. This further requires developing the value proposition the platform would offer and advocating for resources from potential investors. For this purpose, the Global Agenda for Sustainable Livestock agreed to provide financial, technical and mentoring support for organizing a proposal WriteShop in Bangkok to develop a proposal outlining the specific value proposition, structure, and governance of the Dairy Asia Platform.

Dairy Asia Writeshop, Bangkok, July 7-9, 2015

Based on the outcomes of the deliberations in Anand, the Global Agenda for Sustainable Livestock organized a Dairy Asia WriteShop in Bangkok on July 7-9, 2015 to develop some key messages and to prepare the outline of a document outlining the specific value proposition and the structure of the Dairy Asia platform. The WriteShop participants included

1. Grace Cenas, Administrator, National Dairy Authority, Philippines
2. Sangram Chaudhary, Executive Director, National Dairy Development Board, Anand, India
3. Tashi Samdup, Director, Department of Livestock, Ministry of Agriculture and Forest, Thimphu, Bhutan
4. Steve Staal, Regional Representative for Asia, ILRI, Philippines –
5. Narongrit Wongsuwan, Assistant Director, Dairy Farming Promotion Organization of Thailand Saraburi, Thailand
6. Matthew John Fielding, Manager, Stockholm Environment Institute – Asia, Bangkok, Thailand
7. Thumrongsakd Phonbumrung, Regional Project Coordinator, SDDP, FAO RAP
8. Vinod Ahuja, Livestock Policy Officer, FAORAP
9. Henning Steinfeld, Chief, Livestock Information and Policy, FAO HQ

10. Neil Fraser, Chair, Global Agenda for Sustainable Livestock

The WriteShop participants developed the key messages as presented in Annex 2 and worked out the value proposition and the organizational structure as outlined below

1. Why Dairy Asia?

- a. Cross learning, experience sharing, relationship building
- b. Platform for packaging and facilitating the exchange of knowledge and experience
- c. Exploiting the diversity of systems, scale, capacity, policies and experience of the Asia dairy sector for mutual benefits and more symbiotic development
- d. We are like no other—independent, multi-stakeholder platform focused on dairy

2. Name—"Dairy Asia: For Health and Prosperity"

3. New Logo -- **Dairy Asia** for health and prosperity

4. Core values/consensus document (Annex 3):

Institutions need to sign the core values/consensus document to become a member.

5. Membership criteria—open, voluntary, not-price based

6. The Organizational Structure

1. Steering Committee

a. Functions

- i. Lead, guide, coordinate and set policy directions, strategy and program priorities for Dairy Asia including contributions to the continuous development of vision and strategy
- ii. Advocate and promote the values and cause of Dairy Asia
- iii. Stimulate partnerships and participation including establishing linkages with governments and other national, regional and international platforms, agencies and initiatives
- iv. Approval of work plan and budget
- v. Monitor and review the activities of the secretariat
- vi. Guide and approve technical working group plan and composition
- vii. Resource mobilization
- viii. Commission ad hoc technical working groups/studies
- ix. Advise on the communication needs and tools of Dairy Asia

b. Composition

- i. 8-12 members
- ii. Minimum representation of the following key sectors—Government, national dairy agencies, civil society, international/regional, private sector, research/academia, producer representation
- iii. Rotational/geographic representation
- iv. Time bound (member term limit - 3 years; staggered every 3 years)

2. The Technical Working Groups

a. Functions

- i. Provide knowledge leadership in specific technical areas
- ii. Develop and package knowledge from cross-country experience
- iii. Compile and analyze knowledge and information in specific technical areas and develop knowledge products and partnerships
- iv. Propose and initiate projects, training and technical activities
- v. Respond to specific technical requests from members
- vi. Explore new areas of regional technical needs
- vii. Convene workshops/study tours, etc
- viii. Contribute to resource mobilization
- ix. Develop work plans and propose to SC through the secretariat

b. Composition

- i. Committed technical experts/senior managers

3. The National Focal Points

a. Functions

- i. Ambassador/champion of Dairy Asia at the country level
- ii. Encourage other stakeholders to join Dairy Asia
- iii. Liaise with the secretariat
- iv. Propose/coordinate implementation of DA recommendations/activities in the countries
- v. Represent or identify appropriate country representative and provide feedback to country stakeholders
- vi. Provide human resources/finances to support in-country DA activities
- vii. Contribute to resource mobilization in support of DA activities at the country level
- viii. Organize stakeholder meetings to identify priorities etc
- ix. Translation and dissemination of knowledge products/communication

b. Agreed focal points

- i. India: National Dairy Development Board, India

- ii. Thailand: Dairy Farming Promotion Organization of Thailand
- iii. Philippines: National Dairy Authority of Philippines
- iv. Bhutan: Department of Livestock Government of Bhutan

Secretariat to work with countries to identify focal points in other countries of the region

4. The Secretariat

a. Functions

- i. Provide administrative and logistics support for platform activities
- ii. Coordinate activities of the Technical Working Groups
- iii. Provide communication infrastructure and products
- iv. Process documentation
- v. Member relations
- vi. Website maintenance
- vii. Organize meetings and activities
- viii. Process annual budget, plan and projects and manage financial resources
- ix. Implement Steering Committee decisions
- x. Develop strategy for long term sustainable growth of the platform

b. Composition (depending on the availability of financial and in-kind resources)

- i. Executive Secretary (flexible 50% - full time)
- ii. Communications Officer (flexible 50% - full time)
- iii. Admin/Finance (as required -- host organization)
- iv. Technical Advisor (20-30%, part time)

Location

FAORAP/APHCA (with contributions from other organizations)

7. Elements of Dairy Asia Communication Strategy

a. Communication objectives

- 1) Raise the sector profile:
- 2) Contribution to nutrition, livelihoods, empowerment of women, employment creation, climate change mitigation potential through productivity increases, etc
- 3) Raise awareness about the Dairy Asia initiative and the importance of multi-stakeholder action

b. Products and tools

- i) Key messages,
- ii) Short power point presentations
- iii) Banners and roll ups
- iv) Platform document
- v) Brochure
- vi) Issue papers

c. Communication channels

- i) National focal points to brief relevant officials and ministers targeting the APRC in Malaysia (March 2016).
- ii) DPO Newsletter, NDDDB Diary, NDA Annual Report, NDA Brochure, DLD Newsletter, AHAT Magazine, Annual reports, newsletters, websites, social media, reports, regional reports, GASL Website,
- iii) Press conference to coincide with the launch
- iv) APHCA
- v) International communication channels linking international partners, social media (Twitter Feed)
- vi) Review of more modern communication tools and utilization of various other forums in FAO (Knowledge Management Officer, Partnership officers, South-South Cooperation, etc)

8. Launch

January 2016 in Thailand (to coincide with Thailand National Dairy Festival)

Issue papers to be prepared

- a. Institutional development for Dairy Development in Asia (to be prepared jointly by NDDDB, India and Thailand team; NDDDB India to take the lead)
- b. Genetic Improvement Issues for Dairy Development in Asia ((to be prepared jointly by Thailand team and NDDDB, India; Thailand team to take the lead)
- c. Dairy Economics and Policy (to be prepared jointly by FAO and ILRI)
- d. A potential paper on manure management practices (to be prepared by Stockholm Environment Institute, Bangkok)

WriteShop participants to function as interim coordination group until the launch. Formal Steering Committee to take over from the launch event and interim coordination group to dissolve.

Annex 1: A Joint Communiqué

Dairy Asia: Towards Sustainability
From Concept to Action

Anand
23-26 March 2015

We, the delegates to the High Level Dairy Asia Meeting on Sustainable Dairy Development, convened jointly by the Food and Agriculture Organization of the United Nations (FAO), the National Dairy Development Board of India, the Animal Production and Health Commission for Asia and the Pacific (APHCA) and the Global Agenda for Sustainable Livestock (GASL), from 23-26 March 2015, in Anand, India:

Consider the rapid growth in the demand for milk and milk products an opportunity to make substantial contribution to the national and regional food security, nutrition, rural development and empowerment of women in Asia.

Appreciate that while capitalizing on this opportunity, we need to be conscious about growing pressure on natural resources (land, water and biodiversity), increasing feed scarcity, climate change and the need for more equitable national and regional development.

Stress that the notion of sustainability must be considered in its full complexity encompassing all its pillars—economic, social and ecological; and sustainability must be considered a societal issue.

Recognize that meeting the future challenges requires integrated efforts by a wide range of stakeholders so as to capitalize on the strength of dairy production systems in the region and to minimize the potential negative impact of rapid growth in demand and supply of dairy products.

Agree that the cause of future dairy development in the region would be better served by promoting and adopting technologies and management practices that facilitate integration of economic profitability, social and economic equity, and ecological sustainability goals.

Together, we endorse the **Strategic Framework for Sustainable Dairy Development in Asia** and commit to work towards raising awareness and implementing the strategic objectives outlined in the Framework paper. In this context, we agree to promote measures to

- (i) strengthen advisory and other support to improve animal nutrition, appropriate breeding programs, good animal health support and more efficient nutrient recycling with the objective of increasing efficiency and profitability of the dairy value chain

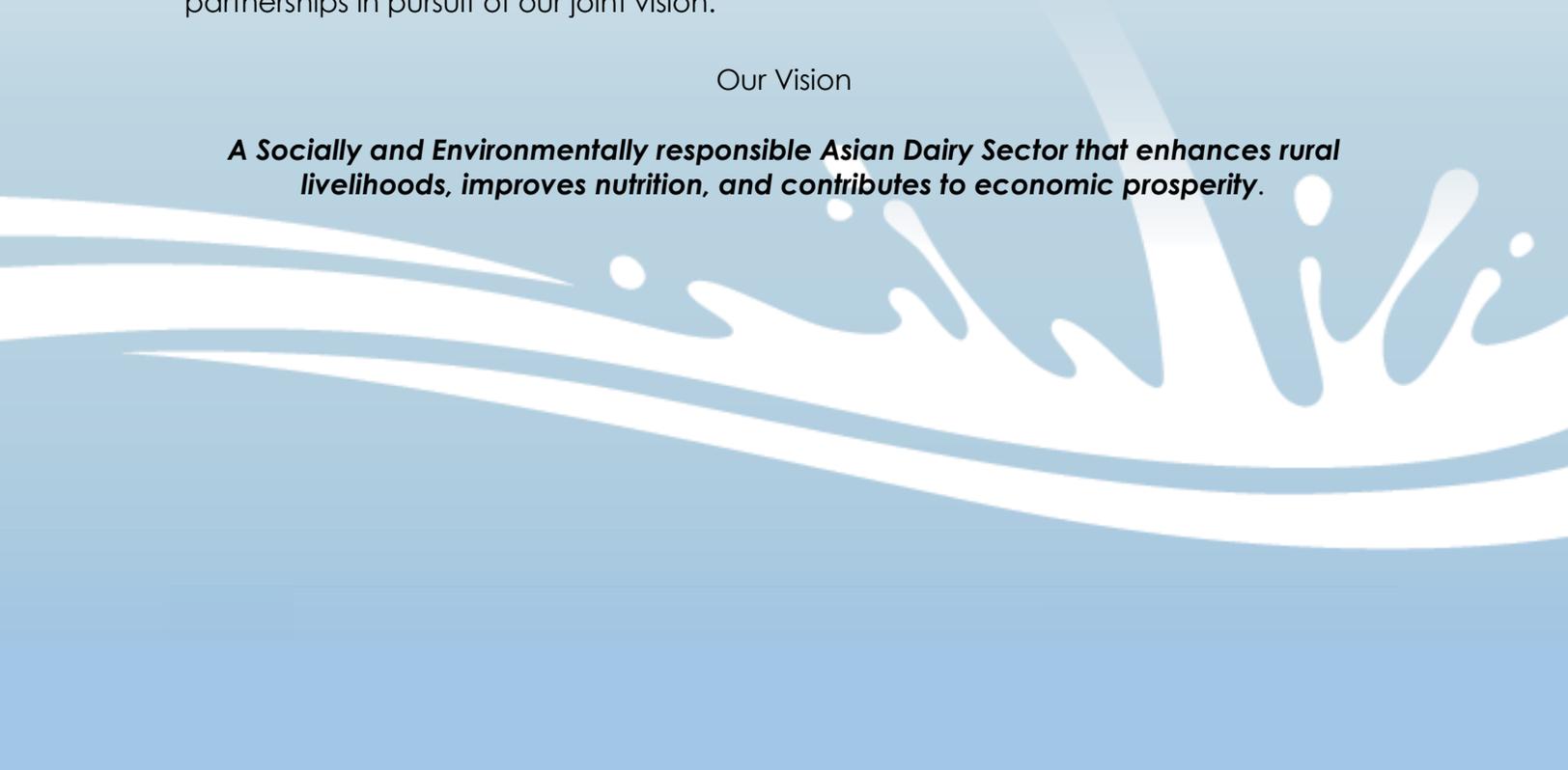
- (ii) promote fair and efficient markets including institutional structures to integrate small producers in the modern value chain
- (iii) create employment and income generation opportunities, especially for rural women, and promote household food security and rural livelihoods
- (iv) improve dairy food quality and safety including improvement of regulatory and support measures
- (v) enhance consumer awareness to enable them to make more informed choices
- (vi) advocate within our respective countries consideration of school milk programs as part of the national nutrition strategy and programs
- (vii) strengthen stakeholder capacity to cope with production and market risks and for innovation
- (viii) raise the profile of dairy in national and international policy making fora/processes
- (ix) minimize the negative impact on natural resources — land, water and biodiversity; and improve mitigation/adaptation to climate change.

We support strong institutional linkages between research, extension and stakeholders for and promotion of more efficient husbandry practices and environmentally sound interventions. We agree to promote solutions that rely on improving the knowledge base of stakeholders, emphasizing learning-oriented dairy extension systems and encourage the formulation of conducive policies and investment climate in sustainable dairy development in support of food security, nutrition and livelihoods.

We recognize the complexity of future challenges including the diversity across countries. While recognizing the legitimacy of differences in challenges, opportunities and the response mechanisms, we also recognize that these challenges can be better dealt via coordinated joint action among and within all countries in the region. In view of this, we pledge to work together and create regional and national multi-stakeholder partnerships in pursuit of our joint vision.

Our Vision

A Socially and Environmentally responsible Asian Dairy Sector that enhances rural livelihoods, improves nutrition, and contributes to economic prosperity.



Annex 2: The Asian Dairy Challenge: Key Messages

Importance and opportunities

1. Dairy is the third most economically important agricultural commodity in Asia and the region accounts for more than 35 percent of global milk production. World milk production is projected to increase by 175 Mt (23%) by 2024 compared to the base years (2012-14), the majority of which (75%) is anticipated to come from developing countries, especially from Asia. This will drive the growth in dairy's share of agricultural GDP while food crops decline in relative economic importance.
2. Dairy makes a large net contribution to food supply by converting feed resources not edible by humans into high value animal products. Regional estimates are not available, but in India, for example, the ratio of human-edible protein output to human-edible input ratio for dairy is at least 4.3 times resulting in the production of additional 3 million MT equivalent protein. At 60 grams/person/day, this can meet the need of about 150 million people annually without imposing additional pressure on natural resources.
3. Millions of smallholder producers, including women and the landless, produce 80 percent of milk in Asia and depend on dairy for their livelihoods. In addition to regular income, the dairy enterprise offers inflation-proof cattle assets for insurance and financing. Other benefits include draft power, contribution to meat supply, soil fertility and fuel from manure. The dairy value chain generates large scale employment, particularly in rural areas.
4. Farmers, especially women, are empowered through enhanced sustainable livelihoods, cooperation and participation in organization and community activities resulting in strong leadership development.
5. Milk is a nutritious food, rich in Proteins, Calcium, Vitamin A, D, and E, and micronutrients and can make a significant contribution towards healthy nutrition and development, especially for children. This is particularly true for countries where diets lack diversity and consumption of animal-source foods is limited, as is the case in a number of countries in Asia. Globally, 52 million children under five are estimated as wasted and 70 per cent of them live in Asia, mostly in South Asia. Such children are at higher risk of acute malnutrition and death.
6. Globally, dairy has a favorable water and carbon footprint compared to other livestock products due to its heavy reliance on agro and forestry by-product based feed resources and nutrient recycling.
7. Investing and capacity building in dairy development offers multiple social, economic and environmental benefits.

Challenges

1. Growing demand and production could lead to increased pressure on land resources and ecosystems services, and the associated possible consequences in terms of social structures and public health.

2. Productivity enhancement offers substantial potential to contribute to enhanced profitability and reducing the potential negative impacts of rapid growth in the production of milk and milk products. Considerable scope exists for yield and efficiency gains in much of Asia. Underlying low productivity is the interaction of factors including feeds, breeds, animal disease and husbandry practices, all of which are linked to human capacity and access to technology.
3. Support for development of delivery systems for minimizing animal disease burden is another area that deserves focused attention. This requires large and consistent investment in building animal health capacity and promoting dialogue towards identifying and implementing options for disease control.
4. Inclusive market development is needed to ensure that the dairy sector continues its role in promoting rural livelihoods and poverty alleviation. Increasingly, standards for quality in modernizing markets can threaten market participation of those producers who cannot easily comply. Economies of scale in marketing and processing also favor larger and more concentrated production.
5. It is important to address food safety and quality issues along the dairy value chain and provide solutions to perishability, product inconsistency, and applying standards for milk quality and hygiene. The quality and safety assurance systems should be based on a combination of measures and be based on scientific knowledge related to producing a safe product and a range of socio-economic factors, including the consumer demand for food safety.
6. School milk programs in rural areas linked to local dairy development holds significant opportunities for enhancing food security and nutrition in rural areas.
7. Environmental issues in dairy development involve land and water scarcity, soil degradation, pollution of waterways, greenhouse gas emissions from rumen fermentation, and waste management. Responsible and efficient management of these resources will facilitate sustainable growth of the dairy sector.
8. Sustainable dairy development requires enabling policies including producer and other support institutions, and enhanced access to credit, technology and information.

Asia has a rich diversity of experiences and models to address these challenges. Dairy Asia aims to foster coordinated regional collaboration and cooperation to capitalize on these experiences and to promote regional and national multi-stakeholder partnerships in pursuit of our joint vision

A Socially and Environmentally responsible Asian Dairy Sector that enhances rural livelihoods, improves nutrition, and contributes to economic prosperity

Annex 3: Core Values/Consensus Document of Dairy Asia

Dairy Asia

for health and prosperity

Core values and consensus

Consider the rapid growth in the demand for milk and milk products an opportunity to make substantial contribution to the national and regional food security, nutrition, rural development and to the empowerment of women in Asia.

Appreciate that while capitalizing on this opportunity, we need to be conscious about growing pressure on natural resources (land, water and biodiversity), climate change and the need for more equitable national and regional development.

Stress that the notion of sustainability must be considered in its full complexity encompassing all its pillars—economic, social and ecological; and sustainability must be considered a societal issue.

Recognize that meeting the future challenges requires integrated efforts by a wide range of stakeholders so as to capitalize on the strength and diversity of dairy production systems in the region and to minimize the potential negative impacts of rapid growth in demand and supply of dairy products.

Commit to

- Facilitating exchange of knowledge and information on all aspects of dairy development.
- Supporting dairy institutional development.
- Supporting policy and strategy for dairy development.
- Advocating and developing new investment partnerships in dairy development in support of food security, nutrition, livelihoods and sustainability objectives.
- Facilitating and collaborating in research and development in dairy.

Name: _____

Title and Organization: _____

Signature _____: Date _____