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**A Multi-Stakeholder Dairy Platform for the Asia-Pacific Region:
Justification and Issues to be Considered for Formation and Management**

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Executive Summary

South Asia has a strong tradition in production and consumption of milk. The Southeast and East Asia region did not have such tradition in the past. However, since the 1970s, there has been rapid growth in demand for dairy products in both the regions propelled by population, urban and income growth leading to major changes in dietary patterns. There are significant differences in dairy production and consumption patterns and their evolution in South and Southeast and East Asia regions. In both the regions, milk production takes place primarily in smallholder crop-livestock mixed farming systems though there are diversities in species, breeds, production technology and systems, market and value chains, extension and research systems and capacities, and policy and regulatory environments.

The FAO and the Animal Production and Health Commission for Asia and the Pacific (APHCA) have shown longstanding commitment in smallholder dairy development in the region through several single or multi-country initiatives and projects, and organising several conferences and workshops to serve as a mechanism for sharing experiences. These conferences and workshops provided opportunities to share many experiences of successful models of smallholder milk production and marketing in the region. But these efforts are fairly inadequate to address the multitude of opportunities and challenges of sustainable smallholder dairy development in the region. Currently there is no formal institution or mechanism to facilitate exchange of experiences, lessons and information about dairy across the region for the benefit of various stakeholders in the dairy sector.

The conferences and workshops held during the last decade identified that dairy development efforts in the region need to be pursued in the context of the following emerging trends and issues: a) paradox in the dairy market – strong trends in demand growth in both South and Southeast and East Asia while prevalence of widespread malnutrition and under-nutrition, especially among children and women, in South Asia, b) the predominance of smallholder production, informal dairy market and emerging larger processors in some countries, c) concerns about economic, social and environmental sustainability of smallholder production systems in the face of scarcity of resources especially land and water, and d) non-equivalent perspectives of stakeholders as the nature and scale of the problems and challenges facing the dairy sector vary by systems of production and marketing, country and level of economic development, policy and institutional environments. Consequently a coordinated joint action is required to address all problems and opportunities simultaneously.

A review of several existing regional and global multi-stakeholder platforms reveal that there is no single model for organizing and managing a platform or forum or alliance for joint action across countries. And participation from the Asia-Pacific region in the established regional and global platforms related to livestock and/or dairy is minimal partly because priority of those platforms is to address problems and issues facing the developed country dairy industries and partly because of lack of resources of many small stakeholders in the region to widely and actively engage in those platforms. Therefore there is a need for creating a voluntary open platform by stakeholders in the region to

- Promote dialogue towards enhancing common understanding of development issues and their solutions,
- Build consensus on the role of dairy towards sustainable food security and nutrition and
- Catalyse stakeholder commitments to action and on-the-ground improvements through exchange and dissemination of knowledge and experience.

The following issues need to be considered for creation and management of a multi-stakeholder in the region taking lessons from the other regional and global platforms:

- a) **Goal and purpose** need to be clearly defined so that they are operable, implementable and achievable rather than abstract wishes. The goal may be to facilitate collective action towards a sustainable and responsible dairy sector that supports rural livelihoods, contributes to economic prosperity, improves nutrition, and promotes ecological sustainability. The purpose or objective may be to facilitate human resource development and knowledge sharing, improve productivity and competitiveness, enhance producer-consumer linkages to deliver quality products, and enhance enabling policy environment for sustainable dairy development in the region. In more specific terms, the purpose may be to promote dialogue towards enhancing common understanding of development issues and their solutions, build consensus on the role of dairy towards sustainable food security and nutrition and catalyse stakeholder commitments to action and on-the-ground improvements through sharing and dissemination of knowledge and experience.
- b) **Priority activity areas:** May include the following with more specific tasks to be worked out:
 - Facilitate or organise multi-stakeholder dialogue through workshops, conferences, meetings, mutual visits for knowledge sharing on important common problems and issues,
 - Create opportunities for productive partnerships among stakeholders across countries in the region and beyond
 - Promote multi-stakeholder and/or multi-country collaborative research, analysis, assessment on issues of common interest and relevance.
 - Any other activity that may contribute to the goal and objectives.
- c) **Stakeholders and members :** the following categories may be considered:
 - Government Ministries, Departments and Agencies
 - Dairy industries, cooperatives, farmer associations, food processors and retailers, consumer associations, NGOs
 - Research and education institutions – both public and private
 - Individual experts - policy makers, managers, academia, researchers and technical experts in various fields

More detailed questions about actual unit of membership, representation and selection need to be worked out, discussed and resolved.

- d) **Governance and management :** questions to be considered and resolved are the following:
 - Lgal status of the platform, host country/institution, any form link with FAO/APHCA,
 - Management structure including apex body and its composition and functions, number of lower level bodies and their composition and functions, principles for representation of various categories of stakeholders or constituencies at each level of management.
 - Secretariat – function, location, size

e) **Funding mechanism and financial management** : questions that may be considered and resolved are as follows:

- Funding for what purpose and what size – establishment, and promotion, then operational, implementation of specific activities to achieve
- Membership fee – should be imposed or not? At what rate on what basis? Any discrimination? On what basis?
- Other sources of funds including charging fee for certain services and donor funds
- Fund management and accountability

f) **Constitution or Statute of Operation** : A constitution or statute of the platform need to be formulated and adopted by the GB in due course once all the issues mentioned above have been discussed and resolved. However, the constitution should be brief and simple, and remain flexible in the beginning on membership procedure and categories to allow wider participation, but the finance and management of the platform should be handled with efficiency, transparency and effectiveness to ensure that it is put on a strong footing.

1. Background and Justification

South Asia has a strong tradition in production and consumption of milk. The Southeast and East Asia region did not have such tradition in the past. However, since the 1970s, there has been rapid growth in demand for dairy products in both the regions propelled by population, urban and income growth leading to major changes in dietary patterns. The South Asian countries kept reasonable pace in overall growth in milk production with demand growth, but East and Southeast Asian countries have emerged as net importers of dairy products since demand growth surpassed production growth.

In both the regions, milk production takes place primarily in smallholder crop-livestock mixed farming systems though there are diversities in species, breeds, production technology and systems, market and value chains, extension and research systems and capacities, and policy and regulatory environments. There are many experiences and successful models of smallholder milk production and marketing in the region. But these are fairly scattered in literature and there is much to be gained from learning from these experiences for local adaptation rather than reinventing. However, currently there is no formal institution or mechanism to facilitate regular exchange of experiences, lessons and information about dairy across the region.

1.1 Smallholder dairy development and FAO and APHCA roles

The FAO and the Animal Production and Health Commission for Asia and the Pacific (APHCA) have shown longstanding commitment in smallholder dairy development in the region through several single or multi-country initiatives and projects. The mission of APHCA is to enhance the level of nutrition and standard of living of livestock keepers, especially smallholders, livestock value-chain actors, and communities at large through equitable, sustainable and safe livestock sector development. This is achieved by promoting information-generation and exchange, providing normative guidance and coordinating joint action among member countries and other stakeholders. Since overall livestock development is the scope of APHCA's activities, dairy is only a part of its portfolio of activities. Recognizing the central role of smallholder producers in Asian dairy landscape, one of the major thrust of APHCA initiatives has been to facilitate exchange of experiences and lessons learned from successful and unsuccessful models of smallholder milk production and marketing in the region.

In 2007, a stakeholder consultation process was initiated by APHCA, the Food and Agriculture Organization of the United Nations (FAO), and the Common Fund for Commodities (CFC) to distil lessons from Asian experiences about the potential of smallholder dairy in generating inclusive economic growth, food security and nutrition, and to outline elements of a regional strategy for future development. This involved meetings and workshops with participants from over 17 countries representing national government agencies, cooperatives, dairy industry groups, independent research institutions, private companies and dairy producers. The consultative process culminated in what is known as **the Chiang Mai Declaration: A regional dairy strategy and investment plan for smallholder dairy development**. This was elaborated in a strategic vision for smallholder dairy development—*Asian milk for health and prosperity* (CFC, 2008; Morgan 2008).

The strategy outlined the following strategic objectives:

- A glass of Asian milk a day for every Asian child.
- Regional self-reliance and enhanced dairy food security.
- Smallholders better linked to markets and enabled to become commercial dairy entrepreneurs.
- More efficient, productive, profitable and responsible (socially and environmentally) dairy chain
- Regional and national recognition of the multiple benefits of smallholder dairy

In order to address the challenges and objectives, the strategy identified strategic interventions under four mutually reinforcing pillars :

Pillar 1: Human resource development and knowledge management

Building on the availability of various experiences across the region, the strategy identified following major interventions and activities:

- Preparing an inventory of dairy training institutions, experts and materials in the region, identifying those most suitable for smallholder dairy development (SDD).
- Developing state-of-the-art, vocational training courses for SDD best practices and models, including course materials and practicals, which are sustainable and provide incentives for trainers and trainees.
- Establishing a regional SDD-focused capacity building programme at the vocational Dairy Training Centre in Chiang Mai, Thailand.
- **Setting up the Dairy Asia Knowledge and Information Network hosted initially by APHCA.**
- Sponsoring enterprise-to-enterprise exchanges that would allow detailed comparison of practices and operating results among participants.
- Developing a coaching programme that would include a pool of successful smallholder dairy entrepreneurs and plant managers who can be tapped as trainers or visiting coaches for promising smallholder dairy enterprises.
- Increasing the number of qualified plant managers, quality control and product development officers and AI technicians to be made available to growing enterprises.

Pillar 2: Improving the productivity and competitiveness of smallholder milk producers

The major activities identified under this pillar included, *inter alia*:

- Describing in detail and publishing a “menu of options” (catalogue) of the best SDD dairying practices and models ensuring improved returns for smallholders.
- Selecting the dairy development models most appropriate for local conditions.
- Advocacy for the smallholder dairy sector to sustainably compete for resources and finance.
- Assisting the smallholder sector to compete in product markets, in particular through creative linkages with private sector which result in fair and remunerative returns.
- Increasing milk yields, quality and profitability through making productivity enhancing input services (feed, stock, animal health, management skills) readily accessible and affordable and reducing milk chain losses.
- Facilitating the sourcing of appropriate technology, equipment and supplies among dairy enterprises in the region.

Pillar 3: Strengthening the linkages between farmers and consumers to deliver a quality product at a fair price

The major activities identified under this pillar included, *inter alia*:

- Improving farmer access to marketing channels- formal and informal.
- Creating competitive supply chain models.
- Creating fair and transparent pricing systems with incentives to deliver quality milk.
- Diversifying the range of dairy products on offer.
- Educating consumers on the nutritional benefits of local dairy produce.
- Stimulating consumer demand in those countries with very low per capita milk consumption levels.
- Reducing losses (qualitative and quantitative) in the dairy chain.
- Designing and establishing common facilities and networks of resources at national and regional level that would enhance quality control and product development, with potential cost sharing by smallholder enterprises.

Pillar 4: Enhancing the enabling environment

The main aims of Pillar 4 were to identify and promote institutions and policies that are critical to enhancing the bargaining power, market access, and incomes of small farmers. The major activities identified under this pillar included, *inter alia*:

- Articulating a smallholder inclusive policy framework.
- Identifying and supporting conducive legal and regulatory frameworks.
- Advocating for a favourable macro-economic framework.
- Developing a plan of action and advocacy support for ensuring an enabling environment for SDD.
- Creating a platform for identifying and mobilizing the necessary financial services and supportive infrastructure.
- Linking government nutrition programmes including school milk programmes to smallholder dairy producers as suppliers.

Little is known about the implementation of the activities identified under the four pillars. However, in 2008, apparently in response to some Pillar 2 activities, two workshops were organized by the FAO in cooperation with the CFC and one of them led to the compilation of experiences and lessons learned from smallholder dairy development in nine countries in the Asia-Pacific region. It includes generic characterizations and specific models and factors that have influenced smallholder participation in dairy food chains – both good and bad. It also provides the context for regional growth in the sector and some practical guidelines on appropriate/inappropriate support to the sector (Morgan, 2009).

1.2 Review of APHCA activities in 2011 and follow up

In 2011, a review of activities, their effects and current directions of APHCA was commissioned and it was conducted from 17 July to 9 September 2011. The review provided an outline for a strategic framework for APHCA for the next five to ten years. The proposed overarching objective was to “*contribute to ensuring food and nutrition security in the Asia-Pacific region through livestock production and marketing programmes that*

support farmers' livelihoods and are environmentally sustainable and socio-economically sound" (Van Aken, 2011). The review identified strengths, weaknesses, opportunities and threats for APHCA and concluded that, in spite of the fact that a number of other programmes concerned with livestock have been established in the region in recent years, Members still considered APHCA as a most relevant regional body for sharing information and experience with a role of helping to avoid overlaps and duplication of livestock programmes in the region. In all its endeavours, APHCA would need to forge alliances with regional partners and assume a catalytic role. However, there is little, if any, specific discussion in the review on the progress made on dairy, particularly the Chiang Mai Declaration.

As a follow up of the review recommendations, APHCA organised a workshop in Bangkok on 8-9 March 2012 with the objective to develop a new strategy for APHCA that would identify:

- the role APHCA should aim to assume in the evolving institutional landscape Surrounding the livestock sector (e.g. more and more players, growing private sector and NGO activities of non-government organisations in livestock development, OIE and ASEAN engaging in animal production and health, etc.);
- the issues to which APHCA should give highest priority; and
- the mechanisms APHCA can use to become more effective in fulfilling its mandate.

The workshop recommended a new mission, vision, guiding principles and priority areas of activities, and strategic actions as follows:

Mission: To enhance the level of nutrition and standard of living of livestock keepers, especially smallholders, livestock value-chain actors, and communities at large through equitable, sustainable and safe livestock sector development. This is achieved by promoting information-generation and exchange, providing normative guidance and coordinating joint action among member countries and other stakeholders.

Vision: APHCA is recognized as a prime source of information, knowledge, expertise and experience on all aspects of livestock sector development in the Asia-Pacific region.

Guiding principles and priority areas:

- Apply ecosystem, livelihoods and value chain perspective to animal health and production (inter-disciplinarity)
- Establish linkages between local, national, sub-regional and regional levels
- Promote gender equity and safeguard 'rights' of disadvantaged groups
- Link to ongoing national, regional and global policy / development processes
- Build on the strengths of being a membership organization under FAO's broader umbrella
- Apply a programme approach to livestock sector development based on collective self-reliance and mutual assistance
- Give attention to dairy, buffalo and transboundary diseases

Strategic actions

- Increase APHCA's membership and resource base;
- Forge strategic alliances and build networks with regional partners and within these assume a catalytic role;

- Align FAO's programme of work and budget with APHCA's needs and priorities;
- Develop analytical capacity to inform policies and practices towards disaster risk reduction and management through enhancing resilience of production and marketing systems (for biological hazards this means application of the One Health), and
- Improve the Secretariat's capacity to provide high quality information and communication services to APHCA members and other stakeholders.

The recommendations of the strategy workshop were discussed at the 37th Session of APHCA held in Thimpu, Bhutan during 22-26 September 2013 (APHCA, 2013). At the session, it was reported that the first project launched as a follow up of the 2008 Chiang Mai Declaration was the project *Smallholder Dairy Development in Bangladesh, Myanmar and Thailand* that commenced in February 2011 with official launch meetings in Bangkok and Chiang Mai, Thailand. The project consists of three mutually reinforcing sub-projects. These are:

- *Smallholder Dairy Development in Bangladesh, Myanmar and Thailand: Improving the Bargaining Power and Sustainable Livelihoods through the Enhancement of Productivity and Market Access in Dairy (MTF/RAS/CFC/259)* – funded by the Common Fund for Commodities (CFC)
- *Enhancing Milk Consumption and Livelihoods through School Milk Programmes Linked to Smallholder Dairy Operations (TCP/RAS/3309 (D))* – funded by FAO, and
- *Asia Dairy Network – the way forward* –funded by APHCA

The APHCA session noted that a mid-term review of the project conducted in March-April 2013 reported, among other things, progress with respect to the Asia Dairy Network. The network was launched at a specially organized side event symposium—Planning Dairy Development Programmes in Asia—under the auspices of the 15th AAAP (Asia Australasia Association of Animal Production Societies) Congress held in Bangkok in November 2012. A website (www.dairyasia.org) has also been launched and a distribution list **FAO-DairyAsia-L** has been created on the FAO list server. It has nearly 600 members. Through these platforms, members now receive regular updates on project activities and dairy related developments in the region. However, apparently due to shortage of staff, contents on the website are minimal and are not updated promptly.

1.3 FAO's new sustainable agriculture strategy framework

In 2013, FAO released its new global Strategy for sustainable food and agriculture – Vision, principles and approaches (FAO, 2013). The setting for the new strategy was provided by the continued prevalence of poverty, hunger and malnutrition, scarcity of land and water resources and their degradation, loss of biodiversity, impact of climate change and stagnation in agricultural research breakthroughs. In order to address these problems and challenges, the strategy document identified five key principles of sustainability:

- Enhancing the efficiency in resource use
- Conserving, protecting and enhancing natural resources
- Improving and protecting rural livelihoods and social wellbeing
- Enhancing the resilience of people, communities and ecosystems especially to climate change and market volatility
- Promoting and improving effective governance.

To address these principles, four areas of action and four pillars of implementation mechanism have been identified. The areas of action are :

- Building relevant and accessible evidence to aid informed decision making
- Engaging stakeholders in dialogue to build common understanding and joint action
- Formulating tools and levers to enable and provide incentives for changes in food and agricultural systems
- Changing practices, rules, regulations and policies.

It has been emphasized that exact steps needed will differ according to location and scale (local, national, global) and the process is not necessarily sequential. Also communication can occur between any scale and location.

The four pillars of implementation are :

- Integration of national approaches with local level vision and values based on multiple forms of knowledge and multiple scales of enquiry
- Collaboration and partnership through participative processes and co-construction of stakeholders
- Transparency of the entire process – assessment, options analysis and decision making and performance evaluation
- Adaptability and evolution through iterative process since initial decision may be based on incomplete knowledge and information and new information may be available to update decision.

Given the above, FAO's support to its members has been articulated in the form of building institutions and processes to drive change towards sustainability, promotion of appropriate practices and priority-setting, strengthening country capacity to effectively participate in international processes, strengthening country capacity in data collection, analysis, dissemination of information and monitoring progress, providing mechanism for international collaboration.

Specific actions proposed for the livestock sector have been presented alongside other subsectors of agriculture, particularly in the context of needs and opportunities for inter-sectoral integration, and they are mostly in a generic form. There is no specific discussion about the dairy sector though it may be assumed that the principles and priorities are relevant for dairy as well.

1.4 Global Agenda for Sustainable Livestock Development and Asian dairy

While the new strategy framework for sustainable food and agriculture was under preparation, a somewhat parallel initiative was taken by a group of stakeholder under the theme Global Agenda for Sustainable Livestock Development (www.livestockdialogue.org). It was initiated by 22nd session of the FAO's Committee on Agriculture in June 2010 and endorsed by 23rd session in May 2012 as a multi-stakeholder platform to forge partnership to address the social, environmental and economic dimensions of livestock sector growth with a focus on:

- global food security and health,
- equity and growth, and
- resources and climate.

It was further supported by 38th FAO Conference in 2013. The platform was expected to attract the participation and joint action by public and private sectors, producers, research and academic institutions, NGOs, social movements and community-based organizations, and foundations. Further it was agreed that the Agenda would be open, consensual, based on knowledge and mutual respect, and built on voluntary stakeholder engagement. The Agenda identified three priority areas for closing efficiency gap, restoring values of grassland and converting waste to worth mainly by reducing nutrient losses through better manure management. And these would be implemented through :

- Facilitation of multi-stakeholder dialogue at international, national, local level
- Implementation of and support of joint analysis and assessment
- Promotion and support of innovation and local practice change

The Agenda encompasses diversity of production systems and stakeholders, intends to address big issues simultaneously and address the multiple facets of sustainability simultaneously. Though the Agenda does not include any specific priority activity for the dairy sector, of the three priority areas, closing efficiency gap has high relevance for the Asian smallholder dairy sector.

The platform has so far attracted 53 Members, with no mention of any Member from the South and Southeast Asia region (www.livestockdialogue.org). However, a brochure of the Agenda distributed in May 2014 listed 45 members including only four from Asia : a Vietnam Institute, a Chinese society, a Pakistani NGO and a South Asian NGO. It is unclear if the Asian Members have major activities in dairy.

1.5 FAO workshop on dairy in 2014

Seven years after the Chiang Mai Declaration, a new consultation was held in Bangkok on May 21-23, 2014 on “**Dairy Asia - Towards Sustainability**” organized by the FAO Regional Office for Asia and the Pacific (FAORAP) together with Animal Production and Health Division (AGA) of FAO, the Global Agenda for Sustainable Livestock (GASL), Dairy Farming Promotion Organization of Thailand (DPO), Department of Livestock Development, Royal Thai Government (DLD), and other partners. The meeting was organized around three thematic areas:

- natural resources and the environment,
- growing feed and fodder scarcity and the required response, and
- food security, rural livelihoods, public health and human nutrition.

The chosen themes reportedly reflected the need for a multifaceted response to support sustainable growth of the Asian dairy sector. They are fairly similar to those identified in the FAO new strategy framework for sustainable food and agriculture and the focus areas of the Global Agenda for Sustainable Livestock Development. 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 (Ahuja et al., 2014).

In addition to key technical presentation on the three themes, panel discussions were also held on the three themes to discern from the technical papers and discussion major issues of concern and strategies to address them. A fourth panel discussed the need for multi-stakeholder action in pursuit of sustainable dairy, and the principles and modalities of implementation of such an action plan. In the concluding session,

“There was a consensus that such a coalition/platform is essential and the process of creating such a community would involve identification of willing partners, agreeing on a common minimum agenda, putting in place an organizational structure, commitment of resources and a monitoring and accountability mechanism. This should be an open, voluntary and iterative process and such a coalition should be given time to evolve and establish credibility among stakeholders. It was pointed out that the organizations present in the meeting—FAO, NDDDB, APHCA, IDF, WSPA, in particular, bring unique and complementary strengths and are best positioned to creating such a coalition. The stakeholders agreed to continue the dialogue on formation of Dairy Asia platform as a parallel process to the development of regional dairy development strategy” (FAO, 2014).

As agreed at the workshop, a draft strategy document – Dairy Asia : towards sustainability (elements of a regional strategy for sustainable dairy development in Asia)- has been already prepared (FAO, 2015). The document recognizes that the Chiang Mai Declaration is still relevant for Asian dairy, then outlines the major emerging trends and issues as follows:

- **The paradox in the dairy market:** There is strong growing trends in dairy consumption throughout Asia over the last decade. South Asia experiencing the major growth in demand but East and Southeast Asia, not having a strong tradition in milk consumption, also showing strong trend with the region emerging as a major importer of dairy products. On the other hand, presence of a large number of undernourished people in the region, most of them children, especially in South Asia, who could have better nutrition and health from dairy consumption. Two thirds of the world’s undernourished have home in the region and in some countries, incidence of child under-nutrition exceed 40%.
- **The predominance of smallholder production, informal dairy market and emerging larger processors:** Smallholders still dominate the production and market share, so is the case for raw milk and local traditional products, yet with urbanization and income growth, demand for processed products and for quality and safety are emerging rapidly. In response, larger scale modern processing sector is also emerging. This dichotomy is induced by the fact that there are few economies of scale in production with labour intensive traditional technology while there are economies of scale in processing.
- **Emerging concerns about economic, social and environmental sustainability:** The need for protection of the livelihoods of smallholder producers and poor consumers on the one hand and the need for production and productivity improvement in the face of scarcity of land, feed and water, emerging diseases and public health risks, and the impact of climate change create a complex matrix of issues and options posing challenges for making optimal choices.

- **Non-equivalent perspectives of stakeholders yet requiring coordinated joint action:** The nature and scale of the problems and challenges facing the dairy sector vary by systems of production and marketing, country and level of economic development, policy and institutional environments. So stakeholders at all levels - local, national and regional – are bound to have different perspectives on how to tackle them. Yet in the increasingly globalized market economy situations, cooperation and partnership are essential to address the problems to avoid duplication of efforts and reinvention of the wheel, learn from each other’s experience, and achieve cost economy.

These can be achieved by creating a voluntary open platform by stakeholders to

- Promote dialogue towards enhancing common understanding of development issues and their solutions,
- Build consensus on the role of dairy towards sustainable food security and Nutrition, and
- Catalyse stakeholder commitments to action and on-the-ground improvements through exchange and dissemination of knowledge and experience.

Given the above background to initiatives and efforts made for dairy development in the Asia-Pacific region, there is a case for creating a platform or forum or alliance to bring together stakeholders for joint action to achieving a sustainable dairy sector.

2. Experiences of Some Regional and Global Multi-stakeholder Platforms

To help pursue the goal of creating a multi-stakeholder dairy platform in the Asia-Pacific region, experiences of some existing regional and global multi-stakeholder platforms are reviewed to get insights about their goals, objectives, organizational, governance and funding mechanisms. Some of the platforms are related to livestock or dairy and others are not but all of them may provide valuable insights and principles relevant for organizing a new platform.

Profiles of the following three regional platforms are summarised in Table A1:

- Animal Production and Health Commission for Asia and the Pacific (APHCA)
- Asia-Pacific Association of Agricultural Research Institutions (APAARI)
- Asia-Pacific Rural and Agricultural Credit Association (APRACA)

One of the main differences between APHCA and the other two platforms is with respect to their legal status and membership composition. APHCA is a statutory body of the FAO, established under Article XIV of the FAO Constitution, so membership is only open to countries within the FAORAP’s mandate area represented by their governments. On the other hand, APAARI and APRACA are FAO initiated and supported politically neutral non-profit platforms of which membership is open to relevant government, non-nongovernment and private organizations/institutions/associations, and also international and regional institutions. They can form alliance or collaboration with other established organizations in the region to share some mandated functions or create networks or programmes to implement some mandated functions but may not easily create subsidiary statutory bodies because of legal requirements and procedures in host countries.

All three platforms are guided by an Executive Committee elected by its Members, though the composition, tenure and functions vary to some extent. All of them raise funds through membership fees levied at different rates, voluntary donations, and donor funds for specific planned activities or projects. FAO finance part of the cost of the APHCA Secretariat, which is housed within the FAORAP, while the Secretariats of the other two are hosted by FAORAP but not financed.

Both APHCA and APAARI have livestock/dairy within the scope of their functions and activities but APRACA's scope of work does not include livestock or dairy as such. However, APHCA and APAARI's past and current dairy related activities are highly inadequate to address the multiplicity of problems and opportunities facing the dairy sector in the region. Neither platform in their current form and structure provide adequate scope for focused joint action by stakeholders in the sector in the region to come together and learn from each other's experiences.

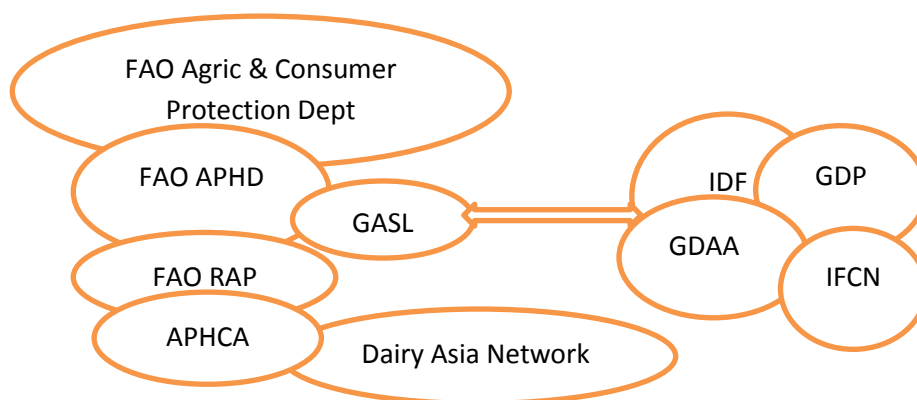
Profiles of six global multi-stakeholder platforms are summarized in Table A2. These are :

- Global Agenda for Sustainable Livestock (GASL)
- International Dairy Federation (IDF)
- Global Dairy Platform (GDP)
- Global Dairy Agenda for Action (GDAA)
- International Farm Comparison Network (IFCN)
- International Food and Agribusiness Management Association (IFAMA)

Among the six, GASL addresses the livestock sector as a whole, IDF, GDP, GDAA and IFCN are focused on the dairy sub-sector, while IFAMA addresses the entire food and agribusiness industry including dairy. In terms of mission, objectives and scope of activities, there are considerable overlap among the livestock/dairy related platforms as well as there are differences as they focus on different segments of the dairy value chain. GASL's aim is to facilitate development of a livestock sector that is economically, socially and environmentally sustainable. It encompasses diversity of production systems and stakeholders, address big issues simultaneously, addresses the multiple facets of sustainability simultaneously. IDF's aim is to provide the best global source of expertise and scientific knowledge in support of development and promotion of quality milk and milk products, to offer consumers nutrition, health and well-being and it addresses wide ranging scientific and technological and market issues in dairy. GDP's aim is to promote sustainable dairy nutrition so that consumers value nutritional value of milk and dairy products especially the role of milk fat, and consider them enjoyable and an essential part of a healthy diet, hence it is focused on the consumer end of the dairy value chain. GDAA is focused on addressing eleven identified criteria of sustainable dairy systems, most of them are environmental and resource related while others are economic, livelihood and animal welfare related. IFCN's main contribution is in providing objective and reliable comparison of dairy competitiveness across countries and production systems using standard analytical models. IFAMA's goal is to bring together current and future business, academic, and government leaders along with other industry stakeholders to improve the strategic focus, transparency, sustainability, and responsiveness of the global food and agribusiness system by serving as a catalyst and clearinghouse for ideas and talent, and research agenda setter that drives the global food and agribusiness system to respond in an innovative, effective, and rapid way to the changing needs of the world.

All six platforms are open to voluntary membership of a variety of relevant stakeholders though some include more variety and geographic spread than others. Some major stakeholders in the global livestock and dairy industry are members or partners or sponsors of nearly all the platforms (Figure 1) while others may have participation in one or two specific platforms. Some like IDF is a federation of national committees while IFCN is primarily a private business with a network of partners and clients.

Figure 1. Linkage among some global organizations and platforms



Some have only fee-paying voting members while others have regular as well as associate and affiliate members with or without membership fee. Generally speaking, membership and participation from the developing world is minimal in all the platforms except in sponsored conferences or meetings or workshops organised by these platforms.

In terms of governance and management, some platforms have hierarchical structure while others are more flat, some have built in mechanism to ensure representation of different member constituencies while others may not have such mechanism explicitly though efforts may be made to obtain representation of various stakeholders. Poor membership from developing regions is a common general feature of almost all the platforms, consequently there is limited, if at all, active participation of stakeholders in the management of these platforms.

Some of the platforms are self-financed and self-sustaining. Platforms dominated by industry stakeholders sponsor their functions one way or another because these are organised primarily to address their own problems and issues. Some platforms are dependent on member contributions as well as grants and donations for specific functions and activities.

3. Issues to be Considered for Organising a Dairy Platform for the Asia-Pacific Region

3.1 Goal and purpose

Earlier the case or justification for creating a multi-stakeholder platform for dairy development in the region has been made. The review of experiences of selected regional and

global platforms suggests that the justification has two main sources or dimensions : a) the opportunities and potential gains from exchange of knowledge and information about successful dairy development technologies, institutions , markets and models experienced within the region, b) inadequate scope or opportunities for stakeholders in the region to engage widely and actively in the deliberations of the global platforms partly because priority of those platforms is to address problems and issues facing the developed country dairy industries and partly because of lack of resources of many small stakeholders in the region. As such, a regional platform may give priority to learn from experiences within the region while keeping options open, subject to availability of resources, to engage with global platforms to gain from global knowledge and experience.

So viewed, **the goal** of a Dairy Forum or Platform or Alliance in the Asia-Pacific region may be to facilitate collective action towards a sustainable and responsible dairy sector that supports rural livelihoods, contributes to economic prosperity, improves nutrition, and promotes ecological sustainability.

The purpose may be to facilitate human resource development and knowledge sharing, improve productivity and competitiveness, enhance producer-consumer linkages to deliver quality products, and enhance enabling policy environment for sustainable dairy development in the region. In more specific terms, the purpose may be to promote dialogue towards enhancing common understanding of development issues and their solutions, build consensus on the role of dairy towards sustainable food security and nutrition and catalyse stakeholder commitments to action and on-the-ground improvements through sharing and dissemination of knowledge and experience.

3.2 Priority activity areas

In order to achieve the above goal and purpose possible priority activities that can be pursued by the platform may include

- Facilitate or organise multi-stakeholder dialogue through workshops, conferences, meetings, mutual visits for knowledge sharing on important common problems and issues,
- Create opportunities for productive partnerships among stakeholders across countries in the region and beyond
- Promote multi-stakeholder and/or multi-country collaborative research, analysis, assessment on issues of common interest and relevance.
- Any other activity that may contribute to the goal and objectives

More specific activities or tasks under the above categories may be identified. The activities identified in the Chiang Mai declaration discussed earlier may be considered as the starting point as they are still relevant and remained unimplemented.

3.3 Who may participate? Stakeholders and membership

Some broad categories of stakeholders in the dairy sector who/which may join the platform include the following:

- Government Ministries, Departments and Agencies
- Dairy industries, cooperatives, farmer associations, food processors and retailers, consumer associations, NGOs
- Research and education institutions – both public and private
- Individual experts - policy makers, managers, academia, researchers and technical experts in various fields

Some clarification on the categorization and unit of membership may be useful here. It will be useful to keep membership open to various stakeholders rather than to countries represented by only government ministries or departments. For example, IDF is a federation of national dairy committees which represent various national stakeholders. APAARI's members are national research councils, which as the NARS leader represent the interests of its constituent units or institutions. Some other platforms keep membership open to both apex organisations as well as constituent units. Individual membership is also not universal – some have it as full or associate members, others do not have it.

Given the four broad categories of potential members identified above, a single agency representation for one country may not serve the purpose of the proposed platform. Membership may remain open to all categories and levels. Membership for institutions may not be limited to apex bodies only rather may remain open to lower level constituent units as well. For example, a government ministry may be a member as well as an extension or research institution affiliated to the ministry may also be a member if it so wishes. While the contribution of the ministry may be in the areas of policy and regulations, the extension or research institution may contribute and benefit from sharing technical issues. Similarly a university may have a faculty of animal science, which in turn may have constituent departments of genetics, nutrition and dairy science. Membership may be kept open to any of the three levels – either the university or the faculty or one or more departments may become members if they so wish.

Contributions and benefits from membership of different categories may be as follows:

Government Ministries, Departments and Agencies

- Input from business, industry, research and academia into the formulation of dairy related policies and regulations.
- A forum to share information and views with business, industry, research and academic members on medium- and long-term trends and issues in the sector locally and in the region in relation to global trends.
- Input into dairy related education programmes to ensure a properly trained supply of human capital to work in official government positions.

Dairy industries, Cooperatives, farmer associations, food processors and retailers, consumer associations, NGOs

- Insights into the future of the sector in the region and globally, what will affect and drive the sector and the industry, why, and over what time frame.
- Knowledge about successful industry, institution and organisational models in the region and elsewhere.
- A forum for open discussion on complex problems, and possible solutions in the

context of globalization with different perspectives and concerns about the sector, and listen to a variety of viewpoints on critical and controversial issues.

- Input into dairy related education programmes to ensure a properly trained supply of human capital to work in the industry.

Research and education institutions

- A place to learn about current trends in the sector from production to consumption points, and emerging issues in order to design relevant research and teaching/training programmes.
- A place to learn about human capital needs in the sector in order to design relevant programmes.
- A place to meet peers from the region and beyond to exchange ideas and establish academic relationships.

Individual experts : policy makers, managers, academia, researchers and other experts

- A forum that is relevant, dynamic, futuristic, value-adding, responsive, and inclusive for the growth of the sector.
- Insights into the future of the dairy sector.
- Access to theoretical and practical frameworks, strategies, models, tools for effective solutions to complex real world problems.
- A network of peers representing different stakeholders and segments of the sector from the region and beyond.
- Access and input into industry, business, governmental, and academic members that formulate policy, decide strategy, and set research agendas.

Membership registration, renewal and withdrawal procedures, and rights and obligations of members need to be defined once the form of membership is decided. It seems reasonable to assume that some advocacy will be needed with promotional materials to make potential stakeholders in the region aware of the emerging platform so that they get encouraged to join based on objective information about its potential roles, cost of participation and benefits to be derived.

3.4 Governance and management options

With respect to governance and management, relevant questions that need to be considered are as follows:

- a) What should be the legal status of the platform or forum or alliance? Who or where can it be housed or hosted? What may be possible link with FAO or APHCA?*

In this regard, it may be noted that APHCA has considerable independence from FAO, including the ability to have an autonomous budget, an independent Secretariat, as well as the establishment of trust funds for its programmes of work. Subject to availability of funds in the relevant approved budget, APHCA can create subsidiary bodies, establish rules of procedure for such bodies, which must be in conformity with the Rules of Procedure of the parent body and the General Rules of the FAO. APHCA currently hosts the Dairy Asia and

Feeds networks and a Policy Advocacy Network is under construction. If an independent Dairy Platform or Forum or Alliance is organized with or without any link with APHCA or FAO, the current Dairy Asia network may be subsumed in that organization to avoid duplicity of efforts.

b) What should be the management structure?

Relevant questions here are : form of the apex body and its composition and functions, number of lower level bodies and their composition and functions, principles for representation of various categories of stakeholders or constituencies at each level of management.

Since participation and membership may be small in the beginning but likely to grow in response to the advocacy drive, initially ad hoc governance and management structure may have to be considered. Once the membership size increase with reasonable representation of countries and various stakeholder categories, more concrete governance and management structure may be built.

Possible options for governance and management that may be considered are as follows:

National committee or chapter may be created with representation of different stakeholder categories. A function of the national committee or chapter will be to do the advocacy among stakeholders for wider participation. Alternatively, existing national forums or associations that encompass multiple stakeholders may be recognized as constituent units, e.g. a national dairy association or a national breeders' association may serve as the national committee or chapter. It is not necessary to have a single body representing a country rather multiple bodies may become primary units to represent various stakeholders. Also it is not necessary to have same type of national chapter or organisation everywhere. What is key is that a national body or bodies must have adequate representation of various dairy related stakeholders. It is assumed that the national committees/bodies will have their own tenure, and modalities of operation independent of the link with the proposed regional forum/platform/alliance.

General Body may be constituted consisting of one or more representatives of each national committee or chapter or body accepted as primary unit. Number of General Assembly seats allocated to a national committee or chapter may be fixed per country or determined by the size of membership of the national committee or chapter. If national committee/chapter option is not considered, General Body may be composed of one or more representatives from each country depending on the number and category of registered bodies as members. So the size of the General Body may vary from term to term but the principles of representation need to be agreed and adopted.

Also frequency of meeting of the GB, its rules of business need to be developed and agreed.

Executive Committee or Board of Management may be formed comprising representatives of the General Body with balanced representation of various stakeholder categories. Principles need to be agreed and adopted to determine how each stakeholder category will be represented on the EC/BoM.

Functions of the EC or BoM may be oversight and guidance, setting agenda, raise funds, and represent in other global forums. More specifically EC may pursue the following functions:

- (a) make proposals to the Platform/Forum/Alliance members with respect to its general policies
- (b) submit draft programmes of work and budget and annual accounts to the alliance members;
- (c) ensure the implementation of the policies and programmes approved by the General Body;
- (d) prepare the draft annual report on the Standing Committee activities for the approval of the General Body
- (e) carry out such other functions as the alliance may delegate to it.

Tenure, rules of business of the EC and its operational modalities need to be developed and agreed. It will be advisable to keep options open to enlarge the EC/BoM as the size of the Body grows over time.

Focus Area Groups or Standing Committees may be formed for the purpose of advancing a specific area of knowledge, learning, policy or technology where members cooperate to effect or to produce solutions within their particular fields. Possible focus areas may be

- Strategy, policy and regulations
- Education, research and technology
- Information exchange and dissemination

Principles for formation of the Focus Area Groups, size of the group, representation of members and its modalities of operation need to be agreed and adopted.

A Secretariat will be needed and its host country/institution needs to be agreed upon. Initially, it should be run with minimal staff for coordination, administration, advocacy work, and communication including serving the EC/BoM and the General Body. With time and expansion of activities, the size of the Secretariat may be enlarged and it may raise its own funds as well.

c) What should be the funding mechanism?

Before looking for funds, it may be useful to first look at possible expenses and levels then see how that fund can be generated. Principles for fund generation and expenditure, fund management and accountability need to be agreed and adopted.

Initially, main expenses may be required for building up the platform including advocacy work to promote the platform and organising a Secretariat. This may include cost of communication and production and distribution of advocacy materials. Personnel costs may also be required. Then expenses for specific activities to achieve agreed goals and objectives will be required. Then decide how to raise the required funds.

Initial cost of the organizing the Secretariat may be covered by the host country/institution until the Platform can raise its own funds. Relevant questions for raising funds may include: Should membership fee be imposed? If so, on what basis and at what rate? Should there be different rates for different categories and sizes? If membership fee is not imposed or kept at low level, should members be asked to pay for participation in platform meetings and events? What other sources of funds e.g. donor or project funds may be accessed for what purpose and under what conditions?

Should fees be charged for certain services to promote effective demand, i.e., those who have utility and value for a training programme may be willing to pay for it – at market price or at subsidized rate. The service seeker may in turn use own resource or get it from some other source but the key here is that there is effective demand for a service.

3.5 Constitution or Statute of Operation

A constitution or statute of the platform need to be formulated and adopted by the GB in due course once the issues discussed above have been discussed and agreed upon. The constitution should be brief and simple, and remain flexible in the beginning on membership procedure and categories to allow wider participation, but the finance and management of the platform should be handled with efficiency, transparency and effectiveness to ensure that it is put on a strong footing.

References

Ahuja, Vinod, Otte, Joachim, Makkar, Harinder (2014) Dairy Asia –Towards sustainability. Proceedings of an international consultation held in Bangkok, 21-23 May 2014. FAORAP, Bangkok.

APHCA (2013) Report of the Thirty-seventh Session of the Animal Production and Health Commission for Asia and the Pacific, held in Thimpu, Bhutan, 22-26 September. RAP Publication No 2013/12, APHCA Secretariat, FAORAP, Bangkok.

CFC (2008) Improved market access and smallholder dairy farmer participation for sustainable dairy development – Asia smallholder dairy development strategy and outline investment plan. Common Fund for Commodities, APHCA and FAORAP, Report no CFC/FIGMDP/16FT. http://www.fao.org/ag/againfo/themes/documents/dairy_dev_strat.pdf08

FAO (2013) Sustainable food and agriculture : Vision, principles and approaches. FAO, Rome.

FAO (2015) Dairy Asia – Towards sustainability. Elements of a regional strategy for sustainable dairy development in Asia. FAORAP, Bangkok. (draft)

Morgan, Nancy (Ed) (2008) Developing an Asian Regional strategy for sustainable smallholder dairy development. Proceedings of an FAO/APHC/CFC-funded workshop, 25-29 February 2008, Chiang Mai, Thailand. RAP Publication no 2008. FAORAP, Bangkok. http://cdn.aphca.org/dmdocuments/proceedings_of_the_workshop_final_with_coverage_revised.pdf

Morgan, Nancy (Ed) (2009) Smallholder dairy development: Lessons learned in Asia. RAP Publication no. 2009/02. APHCA and FAORAP, Bangkok. <http://www.fao.org/3/a-i0588e.pdf>

Van Aken, Dirk (2011) Review of activities and current thrusts of the Animal Production and Health Commission for Asia and the Pacific. APHCA Secretariat, FAORAP, Bangkok.

Persons met

1. Dr Raghunath Ghodake, Executive Secretary, Asia-Pacific Association of Agricultural Research institutions (APAARI)
2. Mr Chamnong Siriwongyotha, Secretary General, Asia-Pacific Rural and Agricultural Credit Association (APRACA)
3. Dr Prasun Kumar Das, Project Manager, APRACA
4. Dr Marlowe U Aquino, Project Manager, APRACA

Persons consulted via skype

5. Mr Brian Lindsay, Global Dairy Agenda for Action (GDAA)
6. Mr Neil Fraser, Chair Guiding Group, Global Agenda for sustainable Livestock (GASL)
7. Mr Jeroen Dijkman, formerly with GASL
8. Mr Jurgen Hagmann, Consultant Facilitator

Appendix Table A1. Profiles of Three Asia-Pacific Regional Multi-Stakeholder Platforms

Attribute	APHCA	APAARI	APRACA
Initiation/ Establishment	Initiated in 1974 by Asia-Pacific FAO member nations at the advice of FAO. Established in 1975 by FAO Council, as a Commission under FAORAP, Secretariat hosted by FAORAP. One of the five FAORAP Commissions	Initiated in 1984 and 1985 by FAO at two regional conferences in Islamabad and Bangkok to strengthen NARS. Established in 1990 at the General Assembly as an apolitical, neutral and non-profit forum of agricultural research in the Asia-Pacific region. Secretariat hosted by FAORAP.	Initiated in 1974 by Asia-Pacific FAO member nations at the advice of FAO. Established in 1977 as a Body Corporate by rural finance and agricultural credit institutions in the region. HQs and Secretariat originally hosted by FAORAP, now moved out of FAORAP office.
Mission/goal/ Objectives	To enhance the level of nutrition and standard of living of livestock keepers, especially smallholders, livestock value-chain actors, and communities at large through equitable, sustainable and safe livestock sector development. This is achieved by promoting information-generation and exchange, providing normative guidance and coordinating joint action among member countries and other stakeholders.	To strengthen the national agricultural research capabilities and to enable the sharing of experiences among national partners, to alleviate poverty, increase productivity and resource-use, protect/conservate the environment and attain agricultural sustainability.	To promote productivity, inclusive growth, self-reliance, and welfare of the rural poor in the Asia-Pacific region. To promote the efficiency and effectiveness of rural finance and improve access to financial services through a network of knowledge sharing and learning, capacity-building, research and exchange of expertise.
Activity focus	<ul style="list-style-type: none"> - Animal health with support from the FAO Livestock Group - Feeds through the Feed Network established for the purpose - Policy advocacy through the policy network (still evolving) - Dairy through the Dairy Asia Network (functional and evolving) 	<ul style="list-style-type: none"> - Building research partnerships - Regional research networking - Human Resource development - Information dissemination - Technology transfer - Policy advocacy <p>Research priority wide ranging with variation between subregions. Livestock issues are included in priority areas.</p>	<ul style="list-style-type: none"> - Foster collaborative sharing of innovations, best practices and knowledge solutions in agricultural financing and rural development; - Training and research to promote better understanding of financial, monetary, banking and economic dev issues; - Consultancy services in support of the APRACA's objectives and programs; - Dissemination and use of high-quality knowledge.

Dairy related work	<p>Three interrelated projects in Thailand, Myanmar and Bangladesh:</p> <ul style="list-style-type: none"> - Sustainable dairy development for improving livelihoods; - School milk to increase milk consumption & improve nutrition; - As a follow up of the Chiang Mai Declaration in 2007, establish Dairy Asia Network to represent the interests of smallholder dairy sector in Asia. It was launched at the AAAP congress in Bangkok in 2010. So far enlisted nearly 600 members, established a webpage and a listserv. 	<p>Research priorities on genetic diversity, meeting animal protein demand, and development of market chains may include dairy related activities though not explicitly mentioned in any of the above cases.</p>	<p>None specific</p>
Membership criteria/types	<p>Member countries of FAO/United Nations, located wholly or partly in the region (defined by latitudes 50° North and 50° South, longitudes 60° East and 130° West).</p>	<ul style="list-style-type: none"> - National agricultural research institutions/ councils/ organizations/universities from the region/ARD Fora in other regions, etc. - Government research departments 	<ul style="list-style-type: none"> - Any government, government department or govt agency involved in rural finance and agric credit for overall development; - Any central bank or monetary authority; - Any national-level financial institution or federation or association of financial institutions actively pursuing rural and agric financing and development; - Any national-level training and/or research and development institute related to rural finance and agricultural credit.
Current members	<p>Total 18 countries. Non-members Afghanistan, Cambodia, China, Korea, Timor Leste</p>	<p>Total 56:</p> <ul style="list-style-type: none"> - 20 NARS regular members (mostly Research Councils rather than individual research institutions) - 16 Associate members (CGIAR, IARCs, ARIs, regional centres) - 10 Affiliate members (regional 	<p>Total 70 institutions from 21 countries in Asia Pacific (including Central Asia and Russia)</p>

		<p>fora, agricultural universities)</p> <ul style="list-style-type: none"> - 10 Reciprocal members (regional/global ARD that recognize APAARI as their member with mutual fee waiver) 	
Organization/ Management/ Governance	<p>Led by an Executive Committee, comprising : the Chairperson; the Vice-Chairperson; three members elected by the General Session of country delegates annually from among themselves; and the immediate past Chairperson of the Commission.</p> <p>Senior Animal Production and Health Officer of the FAO RAP, based in Bangkok, are the Secretary of APHCA and the Executive Committee.</p> <p>The Executive Committee provides guidance and assistance in the timely implementation of programmes that have been approved by the Commission.</p>	<p>Led by an Executive Committee elected every two years from among NARS members. Composed of a Chair, a Vice Chair, Executive Secretary and 8 Members.</p> <p>The Secretariat Operates routine research programmes and networks and has two additional special programmes:</p> <ul style="list-style-type: none"> - Asia-Pacific Agricultural Research Information systems established in 2000 and hosted the Secretariat - Asia-Pacific Consortium on Agricultural biotechnology established in 2003 and hosted by the ICRISAT office in Delhi. 	<p>Led by an Executive Committee comprising a Chair, a Vice Chair and 13 members elected every three years by the General Assembly of Ordinary members giving representation different groups.</p> <p>Plus the Secretary and other officials at the Secretariat are Members.</p> <p>The General Assembly meets yearly for routine functions.</p> <p>Implement programmes from the Secretariat in Bangkok and three agencies each having independent management boards:</p> <p>APRACA-CENTRAB – the training arm based in Manila, the Philippines.</p> <p>APRACA Consultancy Services – based in Jakarta, Indonesia.</p> <p>APRACA Publications, based in Mumbai, India</p>
Funding sources	<ul style="list-style-type: none"> - Mainly annual membership fees levied according to GNP and paid to the FAO Trust fund - Extra budgetary contributions - Secretary and part of Secretariat staff paid for by FAO - Some countries established National Currency Funds to meet local or counterpart expenses of joint projects. - Donor funds for specific projects 	<ul style="list-style-type: none"> - Annual membership fee paid by regular NARS members at varying rates. - Donor funds for specific projects and partnership activities. 	<ul style="list-style-type: none"> - Admission and annual membership fee - Voluntary donations by members - Income from investment and sale of publications <p>Defaulting Members' right to exercise power is suspended until dues cleared.</p>

Sources:

Animal Production and Health Commission for Asia and the Pacific

(http://www.aphca.org/index.php?option=com_content&view=article&id=119&Itemid=119), Accessed on 21 Feb, 2015

Asia-Pacific Association of Agricultural Research Institutions (<http://www.apaari.org/>), accessed on 21 Feb, 2015

Asia-Pacific Rural and Agricultural Credit Association (<http://www.apraca.org/org.php>), accessed on 21 Feb 2015

Appendix Table A2. Profiles of Some International Livestock/Business Platforms

Attribute	GASL	IDF	GDP	GDA
Initiation/ Establishment	Initiated by 22 nd session of FAO's Committee on Agriculture in June 2010 and endorsed by 23 rd session in May 2012 as a multi-stakeholder platform. Further supported by 38 th FAO Conference in 2013.	Founded in 1903 as a non-profit private sector organization representing the interests of various stakeholders in dairy at the international level.	Established in 2006, as a members' organisation.	Initiated in 2009 by European Dairy Association (EDA), Eastern and Southern African Dairy Association (ESADA), Pan-American Dairy Federation (FEPALE), Global Dairy Platform (GDP), International Dairy Federation (IDF) and Sustainable Agricultural Initiative Platform (SAI) primarily in response to 2006 FAO report on Livestock's Long Shadow in which livestock, especially dairy, was blamed for large amount of greenhouse gas emission ; committed to make a positive contribution to reducing greenhouse gas emissions (GHG) in the global dairy sector. Commissioned global study and developed Dairy Sustainability Framework (DSF) in 2011 going beyond greenhouse gas emission to include 11 criteria and strategic intent for improving sustainability.
Mission/goal / Objectives	Multi-stakeholder partnership to address the social, environmental and economic dimensions of sustainable livestock sector development with a focus on : - global food security and health, - equity and growth, and - resource scarcity and climate	Representing the dairy sector as a whole at international level, by providing the best global source of expertise and scientific knowledge in support of development	To align and support the dairy industry to promote sustainable dairy nutrition. Consumers value milk and dairy products as	A vibrant dairy sector committed to continuously improving its ability to provide safe and nutritious products from healthy cattle whilst: - preserving natural resources, - ensuring decent livelihoods across the industry.

	<p>change.</p> <p>These are aligned with five broad principles of sustainability listed in the FAO sustainable food and agriculture framework:</p> <ul style="list-style-type: none"> - increase efficiency - enhance livelihoods and human well-being - protect resources - increase resilience - improve governance 	<p>and promotion of quality milk and milk products, to offer consumers nutrition, health and well-being.</p>	<p>naturally nutritious, enjoyable and an essential part of a healthy diet.</p>	<p>Strategic intent with respect to 11 sustainability criteria are:</p> <ul style="list-style-type: none"> • Reduce greenhouse gas emission • Minimise soil nutrient impact on water, air • Minimise waste generation • Maintain water quality • Maintain soil quality • Maintain and enhance biodiversity • Develop economically viable market • Contribute to livelihood of rural economies • Maintain rights and integrity of workers • Ensure animal welfare
<p>Activity focus</p>	<p>Three priority areas:</p> <ul style="list-style-type: none"> - Closing efficiency gap, - Restoring values of grassland - converting waste to worth especially through improved manure management <p>Implemented through</p> <ul style="list-style-type: none"> - Facilitation of multi-stakeholder dialogue at international, national, local level - Implementation of and support of joint analysis and assessment - Promotion and support of innovation and local practice change 	<ul style="list-style-type: none"> - Animal health and welfare - Dairy science and technology - Economics, policies and marketing - Environment - Farm management - Food standards - Hygiene and safety - Methods of analysis and sampling 	<p>Nutritional value of milk</p> <p>Role of milk fat in diet</p> <p>Role of dairy in livelihood</p> <p>Relation of dairy with environment</p>	<p>Align global ambition to regional activity on key sustainability issues in a coherent way.</p> <p>Connect : Map and connect existing activity addressing regional priorities, allowing for cross-fertilization.</p> <p>Progress: Reveal opportunities for development of new or accelerate existing activity to improve performance</p>

		- Nutrition		
Dairy related work	Co-sponsored Dairy Asia dialogue in Bangkok in May 2014 and contributed to framing the Dairy Asia sustainability strategy as the Asia-Pacific regional priority issue	All above	All above	All on dairy
Membership /partnership criteria	<p>Six clusters/categories:</p> <ul style="list-style-type: none"> - public sector - private sectors & producers, - academia/research - donors - NGOs, - Social movements and community-based organizations, <p>agreeing that the Agenda is open, consensual, based on knowledge and mutual respect, and built on voluntary stakeholder engagement.</p>	IDF members are organized in National Committees , which are national associations composed of representatives of all dairy-related national interest groups including dairy farmers, dairy processing industry, dairy suppliers, academics and governments/food control authorities.	Leading dairy corporations, cooperatives and associations interested to resolve issues affecting the future viability of the dairy sector	<p>Three categories of members:</p> <p>Full Implementing Members: Those who can realistically endorse the 11 Criteria and Strategic Intents and implement initiatives to address these (e.g., farming groups, dairy manufacturers...)</p> <p>Affiliate Members: Those close to or part of the sector who are able to endorse the Sustainability Criteria and Strategic intents, though not in a position to directly implement sustainability initiatives address the Criteria for the dairy sector (e.g. research organizations...)</p> <p>Support Members: External actors who may endorse the Criteria and Strategic Intents and wish to monitor and support the progress of the DSF and the sector as a whole (e.g. NGOs...)</p>

<p>Current members/ partners</p>	<p>Different numbers : 45 including only four from Asia : a Vietnam Institute, a Chinese society, a Pakistani NGO and a South Asian NGO (source: GA Brochure May 2014)</p> <p>53 but excludes the above four from Asia (source: www.livestockdialogue.org as on 27/2/2015)</p>	<p>56 National Committees. (In Asia only Japan, Korea, Philippines and India have national Committees)</p>	<p>27 fee paying Commercial dairy companies and Associate members like banks serving the industry</p> <p>52 non paying Non-profit members, primarily academic and research organizations or industry associations engaged in consumer and producer education and awareness.</p> <p>Other than 2 Japanese and 2 Korean non-profit members, almost all are from Europe, North America, Australia and New Zealand</p>	<p>Six GDDA signatories: European Dairy Association (EDA), Eastern and Southern African Dairy Association (ESADA), Pan-American Dairy Federation (FEPALE), Global Dairy Platform (GDP), International Dairy Federation (IDF) and Sustainable Agricultural Initiative Platform (SAI); New membership sought: geographic and skill based additions</p>
<p>Organization / Management / Governance</p>	<p>Managed by : A Guiding Group to guide, coordinate and monitor Agenda objectives and activities and to ensure linkages and exchange of information among Agenda partners. Group composed of up to 5 representatives each from six clusters plus chair of three Focus Area Groups, and at large to ensure regional, national or local multi-stakeholder group representation.</p> <p>Focus Area Groups (currently three as</p>	<p>National Committees form the General Assembly, which elects a Board of Directors for overall policy guidance and a Scientific and Coordination Committee for coordination and supervision of key issues in the dairy sector.</p>	<p>Board of Directors and Operational Committee provide strategic oversight.</p> <p>Communication and Scientific Advisory Board comprising nutritional health scientists, regulatory and communication experts.</p>	<p>Governance principles:</p> <ul style="list-style-type: none"> - By the dairy sector for the dairy sector - Multi-stakeholder Advisory Group in place to challenge and support governance - An umbrella that provides alignment for the global dairy value chain aligned under a common vision working in the same direction - Local solution to local sustainability issues underneath

	<p>stated earlier) composed of stakeholders who signed the Agenda. Each Group may have its own modality of operation.</p> <p>A Support Group, currently hosted at the FAO APHD, to facilitate building of the Agenda</p>	<p>The Secretariat for routine work is headed by the Director General aided by other support staff.</p>		<p>the umbrella – the members are in control of their programmes</p> <p>Currently managed by GDAA signatories supported by a Secretariat, advisory forums, and monthly teleconferences to review progress</p> <p>Overall structure still evolving</p>
Funding sources	FAO, Donors	Membership fees levied on the basis of milk output reported by FAO. Also full and associate membership fee rate for a country is different.	Membership fees charged to commercial companies based on turnover. Associations are not charged fees.	na

Sources:

Global Agenda for Sustainable Livestock, Brochure, May 2014;

Global Agenda for Sustainable Livestock (<http://www.livestockdialogue.org/>) accessed on 27 Feb 2015;

The Global Agenda for Sustainable Livestock, FAO Committee on Agriculture, Summary of 24th Session, 29 September – 3 October, 2014, Rome, Italy. COAG/2014/9 June 2014 (www.fao.org) accessed on 27 Feb 2015;

International Dairy Federation (<http://www.fil-idf.org/Public/ColumnsPage.php?ID=23077>), accessed on 27 Feb 2015;

Global Dairy Platform (<https://www.globaldairyplatform.com/Pages/default.aspx>), accessed on 27 Feb 2015;

The Global Dairy Agenda for Action, Dairy Sustainability Framework. Brochure, February 2015.

The Global Dairy Agenda for Action, Dairy Sustainability Framework (<http://dairysustainabilityframework.org/>), accessed on 27 Feb 2015.

Appendix Table A2. Profile of Some International Livestock/Business Platforms (continued)

Attribute	IFCN	IFAMA
Initiation/ Establishment	Started as a private initiative while as a PhD student during 1994-99, then established as a business in 2000 as an independent politically neutral knowledge provider based in Kiel, Germany	Formed in 1990 and incorporated as an international non-profit educational organization with HQs in Washington D.C.
Mission/goal/ Objectives	Leading, global knowledge organization in milk production, milk prices and related dairy economic topics. Create a better understanding of the dairy world by providing comparable data, knowledge and inspiration.	To bring together current and future business, academic, and government leaders along with other industry stakeholders to improve the strategic focus, transparency, sustainability, and responsiveness of the global food and agribusiness system. To serve as a catalyst and clearinghouse for ideas and talent, and research agenda setter that drives the global food and agribusiness system to respond in an innovative, effective, and rapid way to the changing needs of the world.
Activity focus	<ul style="list-style-type: none"> - Farm comparison based on cost analysis across countries and systems - Sustainability in milk production - Milk price, dairy chain, farm structure analysis - Dairy sector and dairy policy analysis 	Research, symposium/conference, training, and publication and dissemination
Dairy related work	All above	As part of food value chain, dairy is covered. Several leading dairy companies are members
Membership criteria/types	A network of individual research partners providing data to generate knowledge, and dairy related companies and organisations supporting the work and using knowledge	<ul style="list-style-type: none"> • Leading business executives from the global food chain • University departments, libraries, researchers, educators, administrators and students • Research personnel from public and private institutions • National and international policymakers • Non-governmental organizations and consumer group
Current members	98 research partners in 90 countries (includes 10 from Asia-Pacific : Bangladesh 1, China 2, India 2, Pakistan 1, Indonesia 1, Japan 1,	Over 700 from 50 countries. Asia-Pacific region represent 10% of members but few from South Asia.

	Australia 1, New Zealand 1) 12 institutional partners, includes only one from Asia –Pacific (New Zealand) 5 main supporting partners and 100 supporting partners , none from Asia	By types: industry members 38%, academic 41%, government 7%. students 14%.
Organization/ Management/ Governance	Run as an independent private research organisation with employed staff.	Board of Directors and Executive Committee for overall policy guidance. Standing Committees are appointed to implement Board directions. Special Committees and Task Groups and local chapters are formed to implement specific activities. Strategic alliances are made with key national and international policy institutions or associations for mutual benefit from dialogue and discussion.
Funding sources	No clear information on sources of revenues and financial rights and obligations of partners. However, it is apparent that data users have to pay in some form.	Member dues, corporate sponsorship, and overhead from its various activities and programmes. Membership fees vary by membership type: <ul style="list-style-type: none"> - Industry members (large, medium, small based on turnover) - Institutional/organisational members - Individual members : professionals , young professionals and student members
Added value for the dairy sector		

Sources:

IFCN (International Farm Comparison Network), (http://www.ifcndairy.org/en/the_ifcn/welcome/index.php), accessed on 27 Feb 2015;

International Food and Agribusiness Management Association (<http://www.ifama.org/i4a/pages/index.cfm?pageid=1>), accessed on 27-2-2015.