

PSM Partnership Forum on Livestock Final Report June 30th 2016 – IFAD, Rome, Italy

Background

At its 41st session in October 2014, the UN Committee on World Food Security (CFS) requested the High-Level Panel of Experts (HLPE) to prepare a study on Sustainable Agricultural Development for Food Security and Nutrition: What Roles for Livestock? Ahead of the launch of this report, the Private Sector Mechanism to the CFS and the Government of Argentina co-hosted a Partnership Forum on Livestock on June 30 at IFAD.



The objective of the forum was to demonstrate that collaborations between the public and the private sector, smallholder producers and civil society can contribute to creating sustainable, diverse and nutrition-enhancing food systems to end hunger and all forms of malnutrition as well as supporting and promoting healthy diets. It contributed to sharing significant information about projects relating to the livestock sector

taking place around the world that are improving the sustainability of the sector and achieving the Zero Hunger Challenge and SDG Goal 2.

Partnership Forum Fast Facts

- 65 people attended the forum including
 - 31 country representatives from 23 countries

- 17 Private Sector Mechanism representatives
- 3 Civil Society Representatives
- 15 International Organization and UN agencies representatives and others
- 23 speakers and moderators including
 - 4 women, 15 men
 - 2 Ambassadors
 - 2 IFAD Senior Officials

Summary of Presentations

Session 1 – 1:00pm- 3:00pm – Executive Dining Room

Keynote: Jimmy Smith, Director General, International Livestock Research Institute (ILRI)

The many opportunities for livestock to help meet the rising global demand for animal-source foods and to simultaneously address Agenda 2030 are considered. It is argued that three kinds of balance are required for livestock to serve as powerful instruments for leveraging the systemic changes needed both to end hunger and to create sustainable food systems globally. These three are: (1) Balancing the nutritional needs of the over- and under-fed, (2) balancing the public messages about the world's contrasting and diverse livestock systems, and (3) balancing the partnerships between private and public organizations to guide equitable and sustainable transitions in the fast-evolving smallholder livestock systems of the developing world.

Demand for livestock products is going to continue to increase significantly in coming decades, with most of the new demand taking place in developing countries and emerging economies. Opportunities for private-sector engagement and partnership in meeting the demand are discussed, highlighting in particular opportunities for guiding sustainable as well as profitable transitions of smallholder livestock production systems, which currently provide most of the animal-source food consumed in developing regions, and where addressing all forms of development, the 'Zero Hunger Challenge' in particular, is paramount. Public-private partnerships aiming to enhance smallholder livestock production will require both public and private organizations to modify their (very) different business models: examples are given of existing productive public-private partnerships in the areas of livestock vaccines, feeds, and insurance.

Roundtable Discussions moderated by Kasper Thormod Nielsen, Director Trade Policy, Arla Foods

During the luncheon, we asked participants to provide feedback on developing effective nutrition partnerships to achieve the Zero Hunger Challenge by discussing in their tables and then with the whole room a set of three questions :

1. What do countries want most in partnerships?
2. How can livestock partnerships be encouraged at the identification stage and then implemented and multiplied to achieve the ZHC (at all stages of project and policy development)?
3. How can livestock partnerships be best co-ordinated (what are the barriers to enabling partnerships)?

Of the responses received, it is clear that countries seek partnerships to catalyse funding for greater impact. Partnerships need to be based on trust, respect, and transparency with the ultimate goal of achieving clearly delineated policy objectives. To encourage and develop these partnerships the private sector should engage in dialogue, particularly with beneficiary communities, such as smallholders. Partnerships often fail because of a lack of a common vision and alignment. So clarifying objectives, making sure that the same language is spoken and verifying that full all parties understand each other fully is necessary.

Session 2- 3:00pm- 4:00pm – Italian Conference Room

Welcome by Luis Jimenez-McInnis, Director of the Partnership and Resource Mobilization Office, IFAD



Our work, which allows for both food security and poverty reduction by financing rural development projects with our national government partners can in fact only be met with the broad buy-in and support of a viable private sector -- both internationally and domestically. In fact, at IFAD we view the beneficiaries of our investment projects – the hundreds and thousands of smallholder farmers, producers and herders – as small business entrepreneurs themselves. Entrepreneurs who are the backbone of food



systems in most developing countries. As businesses, they need access to capital, viable links to market, and a functioning and conducive policy environment -- which is certainly the very same requirements that all of you in this room face when developing new productive, inclusive businesses opportunities in any market.

IFAD's approach is to finance the public links of the value chain needed to crowd in private investment. These include public investments in climate smart production schemes and technologies and productive infrastructure such as irrigation systems, post-harvest and processing/transformation facilities and feeder roads. The majority of IFAD-supported projects also have a technical assistance component to help producers and agribusiness better market their goods and services. All this helps to mitigate risks inherent to rural agriculture by ensuring that provisions for climate resilience, rural infrastructure and public services are in place before private capital comes in.

IFAD considers the CFS a unique multi-stakeholder platform and the foremost inclusive forum for policy coordination and guidance on food security and nutrition globally. There are several linkages to agriculture, generally, and the livestock-based farming systems, in particular. Primary producers are relying increasingly on a vast spectrum of livestock products to improve farm profits, and the demand pull of markets -- increasingly shifting to meat and dairy-product consumption -- means that the livestock industry is at the intersect of our efforts to improve food security, facilitate positive nutrition outcomes, while at the same time promoting the resilience agenda, and not less importantly generating income for rural women and men.

This event is indeed very timely. During the last years, IFAD has experienced a significant increase of demand from our Member Countries for financing livestock development projects. In 2016, 17 projects out of the over 30 that IFAD will finance will include dedicated project aspects for livestock development. The sector accounts for an average of 40% of agricultural GDP of developing nations, a percentage that is growing and already reaches 60% in some countries.”

***Welcome* by H.E Claudio Rozencwaig, Ambassador of Argentina to the UN Rome-Based Agencies**

We are all together sitting around the table: governments, private sector, civil society, academia, and others, to discuss the role of livestock in the context of food security and nutrition and the importance of partnerships in this sector. This is an adequate space to reflect on the opportunities and challenges that livestock faces nowadays and that will face in the future.

In 2015, the international community agreed the Agenda 2030 that contains seventeen Sustainable Development Goals (SDGs), some of which are directly related to the

mandate of the Committee on World Food Security (CFS). In this respect, we want to highlight that the inclusive and participatory model provided by the CFS is key since it involves all the stakeholders. The Agenda 2030 itself embodies this inclusive spirit present at the CFS. We need all the parties on board to advance Agenda 2030 and the pledge is clear: “leaving no one behind”. We need to move forward together.

Livestock plays a central role in food security and nutrition, as well as in agriculture development and food systems. As recognized in the HLPE Report on “Sustainable Agriculture, including the role of livestock”, “The livestock sector is a powerful engine for the development of agriculture and food systems”.

In the case of Argentina, as in many other countries, livestock generates linkages that have big impacts on the economic, social and environmental development of agriculture and has a direct impact on food security and nutrition.

Regarding economic and social aspects, the livestock sector generates employment and value added for local communities. It represents a big opportunity for people, mainly young people, to get a decent job and to stay in their villages or towns. As we all know, the issue of youth employment and migration from countryside to cities need to be properly addressed. Moreover, the potential of livestock to generate value added in origin has to be duly considered.

Therefore, fostering livestock in the context of sustainable development will help us to advance the “zero hunger” objective and can contribute in a positive way to promote sustainable agriculture and economic and social development. In this regard, attention should be paid to investments in this sector, in particular in research and knowledge, technology, innovation and infrastructure.

The forum is a platform to discuss how partnerships can contribute to the development of the livestock sector, taking into account the main opportunities and challenges, from different points of view. It covers important issues ranging from investments in the sector, to how to increase productivity and efficiency, healthy diets and reduce waste. We need to think and work together to reach the very ambitious objectives that we set ourselves in the 2030 Agenda for Sustainable Development.

Why partner with the private sector for development and how to make partnerships better? Hanne Søndergaard, SVP Global Categories, Arla Foods

The private sector is widely recognized by the international community as an engine of sustainable and inclusive economic growth by generating decent jobs, contributing public revenue and providing affordable goods and services. Investments contribute to improve poor peoples' lives by boosting their productive activities. International development organizations and financial institutions identify private sector development

as one of their fundamental [areas of focus](#) to reduce poverty and support sustainable growth in developing countries.

The development of resilient agricultural and agro-industrial sectors is essential for the construction of a sustainable future for developing countries and, more generally, for humanity. Achieving SDG2 will require huge investments to develop the entire value chain in the sector. The private sector also needs some fundamental structures for it to decide to invest in transformative partnerships that may be perceived as “risky” in a sector that has a long ROI and that requires large capital investments.

It is important for development organizations to consult business to identify growth sectors that could be transformative – enabling economies to move from low-skilled commodity-based industries, to sectors with more scope for technological progress and the building of human capital. The private sector can help these sectors grow by identifying, again in consultation with business, priorities for reform. Governments should work with business to encourage business models that share value and are pro-development.

What are the key issues in the livestock sector where partnerships will be most needed? – Antonio Rota, Lead Technical Specialist Livestock, IFAD

Livestock is the fastest growing agricultural sub-sector, making up five of the six highest value commodities in the world and 40 percent of agricultural GDP in developing nations. By 2050, experts estimate that we will need two times as much dairy and meat products as that produced in 2000. The rising demand for livestock based products at the global level is mainly due to (i) the increasing human population, (ii) the rising economic affluence in middle-income developing countries, (iii) the growing urbanization and (iv) the expanding commercialization and international trade.

This growth in demand has fast provided increasing national, regional and international market opportunities for the livestock sector in developing countries where it directly support the livelihoods of 600 million poor smallholders. The private agribusiness sector has already seized the opportunity and are investing in developing/upgrading livestock value chains, especially in the dairy sector, to secure a constant quality supply of raw material for value adding. The presenter will discuss key issues which - if properly addressed – would significantly boost opportunities for investments through public-private- producer partnerships (4Ps), notably:

- Development of enabling policy and regulatory frameworks for business development and growth;
- Enhancement of production, aggregation and quality of livestock products according to food safety requirements and market demand;

- Improvement and expansion of key communication and market information infrastructure;
- Expansion of availability and access to technical, financial, business development and marketing services, and inputs;
- Establishment of an effective governance system for PPPs

Given that public investments are increasingly constrained, IFAD sees opportunities to collaborate with the private sector as a mean to leverage the livestock sector's resources, expertise and efficiencies. As a result, IFAD has increasingly sought to build mutually beneficial partnerships between the public sector, the private sector and small rural producers through the projects it finances.

Session 3 – 4:15pm- 6:15 pm – Italian Conference Room

Rapid fire presentations and discussions on projects moderated by H.E Hinrich Thölken, Ambassador of Germany to the UN Rome-Based Agencies

Investing in Livestock research and knowledge

Genomic revolution in livestock breeding by Riccardo Negrini, Technical Director, Italian Breeders Association (AIA)

Genomic selection refers to selection decisions based on genomic breeding values (GEBV) calculated as the sum of the effects of dense genetic markers, across the entire genome. Genomic evaluations indeed increase the accuracy of genetic evaluations, decrease the generation interval and have the potential to rapidly increase the rate of genetic improvement in many traits.

Theorized by the fertile imagination of three researchers more than 15 years ago, Genomic Selection boosted thanks to the development of innovative high-throughput molecular technologies.

After that, Genomic selection theory has quickly developed into breeding methodologies and nowadays is directly applied or impacted the overall dairy Sector.

Model and tools are already in place or incoming for the other major livestock species.

The Dairy Sustainability Framework – The dairy sector taking ownership of its sustainability agenda globally, Brian Lindsay, Sector Lead Sustainability, Global Dairy Agenda for Action

The Dairy Sustainability Framework, a programme of the Global Dairy Agenda for Action, was launched in October 2013 as a means to align, connect and progress the sectors sustainability efforts. The Framework has been received by the sector positively

with membership gradually growing to a respectable volume of the global milk production. The Governors of the GDAA took the decision in 2013 to launch the Framework prior to all structures and associated terms of operation were developed so that those who joined DSF had the opportunity to voice how both structural and operational developments of the Scheme should evolve.

Since the launch considerable efforts have been invested by the Governing organizations to ensure the Framework is a robust and demonstrable facility for both the dairy sector and external stakeholders. The Framework continues to grow in both membership and structure. As a completely transparent Framework all developmental aspects are undertaken with the membership to ensure global relevance and applicability.

As the Framework is not the normal approach (Standard, certified scheme etc.) in its development and reporting processes, it is important that additional effort is invested in explaining and demonstrating the robustness of dairy's unique approach to a wide range of stakeholders. It is pleasing to receive the positive responses from stakeholders regarding the dairy value chain and its innovative approach to delivering continuous improvement through its sustainability efforts.

This presentation explored the Dairy Sustainability Framework and how through membership at different levels of the dairy value chain additional value can be added to local initiatives through reporting at a global level.

Increasing productivity and efficiency

Silvopastoral systems in Argentina, everybody wins, Juan José Grigera Naon, Member of Council Representatives of the Institute for the Promotion of Argentinian Beef (*Instituto de Promoción de la Carne Vacuna Argentina-IPCVA*) and Director of the Rural Society of Argentina (*Sociedad Rural Argentina*)

Silvopastoral Systems (SPS) combine forestry and cattle production in the same area. Beef cattle production provides the necessary cash flow while timber is responsible for the long term benefit. Area under these systems has been steadily increasing in northeastern Argentina over the past two decades, following the results obtained in applied research and the transfer of technologies to the productive sector by the INTA (National Institute of Agricultural Technology, public institution), the Regional Consortia of Agricultural Experimentation (CREA) private associative institution of farmers, other national and provincial agencies and various farmer organizations. A hurdle to adoption of SPS is the initial capital required and, in some cases, the small size of the farms, though special credit policies (lower interest rates and longer repayment periods) have

recently been implemented by public and private banks. SPS are relevant in aspects of sustainability such as:

- a) Socially, result in higher and steadier income for farmers, demand qualified working force, create new jobs and provide high quality, from a nutritional point of view, food for human beings i.e. meat.
- b) Environmentally, through carbon sequestration and soil protection.
- c) Economic, diversified production, outputs with a current and future differential value, such as better quality timber and efficient use of resources.

LEAP Partnership: sound assessment tools for eco-efficiency and Sustainable Development Goals, Camillo de Camillis, Program Manager and Scientific Adviser, Livestock Environmental Assessment and Performance (LEAP) Partnership, FAO @FAOKnowledge

Reference environmental assessment methods and data are the tools enabling to generate knowledge for evidence-based policy dialogue and effective continuous improvement, according to the Livestock Environmental Assessment and Performance (LEAP) Partnership, a multi-stakeholder Partnership composed of Governments, Private Sector, NGOs and CSOs.

The importance to build consensus on reference indicators and harmonized methodologies has been recently stressed in the CFS report “Sustainable agriculture development for food security and nutrition: what roles for livestock? “. The wide array of contrasting results from the application of the many technical documents has often been distracting policy makers and businesses from action.

To address this issue, FAO and few partners had set up the LEAP Partnership in 2012 in order to build up consensus on reference methods and data and accelerate environmental improvement of the livestock supply chains.

Over the past three years, LEAP has been growing in membership and has developed reference guidelines for the environmental assessment of feed, small ruminants, poultry, large ruminants and pig supply chains and have shaped principles for assessing the impacts of livestock on biodiversity. 6 Technical Advisory Groups (TAGs) were launched and circa 300 experts from all continents were involved in the development of LEAP guidance documents. In addition, an ad hoc task force developed the LEAP database on GHG emissions from 5 feed crops.

As LEAP mostly focused on GHG emissions until December 2015, a new ambitious three-year work programme has been recently launched to complete LEAP guidelines in scope and include additional environmental impacts to make complete eco-efficiency assessments reality. LEAP has just started to build consensus on water footprinting and on modelling of nutrients cycles and related impacts on water and air. Later this year, LEAP will also form another TAG to develop guidance for accounting for soil carbon stock changes in grasslands and rangelands. Next year, LEAP will develop guidance on indicators for assessment of impacts on biodiversity and eco-toxicity. Currently,

discussion is on-going on how to best develop guidance on feed additives and change-oriented approaches to best compare environmental improvement proposals. LEAP partners and candidate members will also road test LEAP guidelines over the next two years so that guidelines can be revisited and consolidated at the end of the project LEAP.

LEAP is an associate member of the Global Agenda for Sustainable Livestock in which context LEAP is expected to contribute to the development of guidelines for integrated sustainability assessment as well as to challenge policy dialogue with evidences from LEAP assessments.

Participation in LEAP is open and new members are welcomed to road test LEAP guidelines and contribute with their views to the fine-tuning of the reference tools enabling to track progress towards the Sustainable Development Goals.

The Milky Way to Development project, “Making the small scale producer voice heard within a multi-stake holder dialogue and advocacy framework for the effective development of a stainable dairy value chain in western Africa” Abdou Fall, Programme Manager, Billital Maroobé Network

Milky Way to development is a Care Denmark, RBM and CIRAD joint initiative funded by Danida aiming to better position the small scale west african milk producers to tackle the increased liberalization of the dairy market and to advocate actively for investments in local milk production to supply major European dairy enterprises and African dairies with the tools and knowledge to implement socially responsible business models clearly defining a role for small scale milk producers.

The first roundtable of multi stake holder dialogue (Copenhagen, March 15, 2016) has led to a co-signed declaration by CARE Denmark, RBM and ARLA Foods creating then the Milky Way Alliance which a common ambition: to develop a socially, environmentally and economically sustainable market for milk in West Africa that allows both small farmers and large companies - through innovative and social business models - to produce and deliver their products to the market.

The second roundtable is scheduled to take in place in Abuja (Nigeria), November 2-4, 2016. Sixty participants representing small-scale milk producers, governments and regional Institutions (ECOWAS, WAEMU, EU), European Industrial Dairies, West African dairies, Research and Knowledge institutions and NGOs will address the political, technical and environmental issues of the sector; in order to: propose political solutions to encourage the collection, transformation and distribution of local milk and to have new models of social business emerge through learning and sharing best practices.

Partnerships Increasing Productivity and Market Demand for East African Dairy Farmers, Pierre Ferrari, CEO, Heifer International

Heifer International and its partners are working to help 136,000 dairy farmers in East Africa to increase their daily household milk production to at least six liters of milk per cow, per day; and double their incomes by 2018. Achieving this target relies heavily on helping farmers increase the productivity and efficiency of their dairy operations. Heifer and Elanco, an animal health subsidiary of Eli Lilly and Company, have been partners since 2009. In 2015, Elanco conducted an assessment with substantial data analysis of Heifer's East African Dairy operations and the farmers with whom we work. They developed a plan with a series of interventions, prioritized by the highest value for the farmers, including feed, breed and health.

While these interventions are successfully helping farmers get more milk from their cows, local markets often cannot absorb the increased milk production, creating a new problem for smallholder farmers. We continue to seek and engage with private sector partners to help farmers sell beyond their local markets, thereby maintaining a balance between supply and demand, to the benefit of the farmers.

Achieving this target requires helping farmers on both the supply and demand side of development. Private sector partners are integral to successfully helping farmers improve productivity and accessing formal markets where they can sell their increased yields.

Caring for Animals

Innovative algae-based solutions for animal nutrition, health and care, Thomas Pavie, Director "One Health", Olmix Group

OLMIX is an SME biotech company created 20 years ago, with currently 500 staff. We are pioneers in extracting molecules from seaweeds, and our products are available in more than 50 countries, mainly in developing countries in Asia and Africa.

You may wonder: what is the relationship between seaweeds and livestock production? Livestock production faces tremendous challenges (climate change, increase productivity, animal health and welfare), Livestock production needs innovations. Innovation often arises through the application of expertise and technology from unexpected domains or sectors. Seaweeds grow in ocean. 71% of Earth surface is covered with ocean water. Growing seaweeds does not require terrestrial land nor irrigation water, nor fertilizers. Seaweeds are one of the biggest CO₂ capture sink, they are excellent nutrient transformers. Seaweed production does not compete with terrestrial food crops: every seaweed produced is a net addition to the global food and feed balance.

Seaweeds has a rich source of nutritional and functional ingredients, is a resource that can be used to promote and maintain sustainable livestock production practices.

Seaweeds can be used in animal feed, as an alternative resource and without competing with terrestrial crops. Today seaweeds are collected or farmed in the sea, but future relies in combining farming of livestock and seaweeds (or aquatic plants), using green waters and nutrients from animal manure for plant growing, in a virtuous cycle. In addition, seaweeds contain marine polysaccharides, molecules that have biological activities, especially to enhance immunity, as demonstrated recently by a joint research project between INRA (French National Institute for Agricultural Research) and OLMIX. From this fundamental research, OLMIX developed seaweed-based feed additives that contribute to fight antimicrobial resistance in livestock, according the One health principles developed by FAO, OIE and WHO.

The private sector contribution to 2030 agenda is not only the duty of global companies but also of SMEs like us, who are certainly more flexible to develop innovation that livestock production requires. But SMEs need even more public support (harmonization of technical and sanitary standards, market access facilitation, especially for biotechnology innovations, support to RD projects, investments...). In conclusion, at Olmix we are committed to bring the best of the sea, seaweeds, to the best of the land, animal productions, for a better life for human beings. That is what we call One health, thanks to algae.

Regulatory harmonisation partnerships to increase vaccine/medicine availability, Carel du Marchie Sarvaas, Executive Director, HealthforAnimals

HealthforAnimals represents the makers of animal vaccines and medicines used to treat livestock. A big problem for governments is how to make sure the right veterinary products are available in their country. We face a similar challenge - how to get our products on as many markets around the world in a commercially viable manner. So governments and business have a shared challenge.

Our products go through expensive registration processes before they can be sold. Because of this expense, smaller markets are commercially less interesting – but they often need our products most. If companies have to apply different registration requirements in each market, we would only sell in a few large markets. So we need harmonised regulatory requirements. We have 2 partnerships that do this – one between governments and business, and one with the Bill and Melinda Gates Foundation.

1. In a partnership called VICH (vichsec.org) our sector and governments have partnered since the 1990s to harmonise technical registration requirements. With active support from the OIE, more than 50 detailed technical guidance's were agreed. They are applied around the world.

2. With the Foundation we have worked since 2014 to encourage developing nations to work together closer re the registration process of our products. We do this through workshops and conferences with regulatory authorities in Africa and Asia.

Animal welfare as integral part of sustainable development: the triple win of silvopastoral cattle production in Colombia, Dirk-Jan Verdonk, Head of Programmes, World Animal Protection (WAP)

The three dimensions of sustainable agriculture - Environmental, Economic and Ethical – point with regards to livestock farming to the importance of animal welfare. In Colombia, Intensive silvopastoral systems deliver this triple sustainability win. Traditionally, cattle ranching there has relied on extensive systems, with few animals per hectare raised on grass, with limited feed quality and resilience to environmental extremes. Through the planting of protein and mineral rich grasses and shrubs, they supply much more feed from the land, increase soil quality and water retention, as well as improve carbon retention in the soil. Providing for excellent animal welfare, these silvopastoral systems have boosted economic returns based on dramatic increases in productivity, in some cases meat production per hectare has increased tenfold in ten years. These systems work at both small and large scale. World Animal Protection participated in a partnership with, inter alia, the Colombian Cattle Ranching Association and the Global Assessment Agri Benchmark of the Thünen Institute, to assess its impact. This partnership assessment has proved crucial for the development and dissemination of the systems.

Livestock and antibiotics: Where to go?, Olivier Espeisse, Director EU and Africa, Government Affairs, Elanco

Consumers are worried about farm inputs like antibiotics. Livestock farmers need tools to preserve their capital and revenues. Physicians are worried about resistance in humans. There is a need for farming to control and educate about antibiotics – that goes through innovation, improved application, education and controls. There should be no doubt that antibiotics will remain a fundamental tool in raising livestock.

Minimizing waste

Sustainability Water Footprint for Dairy, Nico van Belzen, Director General, International Dairy Federation

Water is essential to life and to farming. We can only ensure food security when we manage water wisely and minimize waste of this precious resource. To manage, you have to measure. Multiple methods exist for assessing water consumption and degradation, which leads to inconsistent results and uncertainty in decision-making. IDF is establishing a guidance document 'Water Footprint Methodology for the Dairy Sector', to allow the global dairy sector to measure progress and improve efficiency in a harmonized manner. The guide aims to increase understanding about water footprinting and identify "hotspots" where water consumption can be reduced in the dairy sector. It will be published later this year.

Partnerships and collaboration are particularly important in sustainability. Therefore, IDF has incorporated ISO guidance and will collaborate with the Livestock Environmental Assessment and Performance (LEAP partnership on water footprinting as is being done on other topics (<http://www.fao.org/partnerships/leap/en/>)).

Another important collaboration is the Dairy Sustainability Framework which, amongst other goals, has the intent that water availability, as well as water quality, is managed responsibly throughout the dairy value chain (<http://dairysustainabilityframework.org/>). An example of reducing water use in the dairy sector is the 'ZerEau' factory in Mexico, a processing plant that does not use any groundwater. It only uses the water extracted from milk for cleaning and other processes.



An example of reducing pollution of waterways is the Water Accord programme in New Zealand. This constitutes a set of national good management practice benchmarks aimed at improving environmental performance on dairy farms. Using over 24.000 km of fencing, thus far it has excluded dairy cattle from 96% of the waterways on New Zealand dairy farms.

Milk already has a low water footprint relative to nutrition provided, and the dairy sector is dedicated to further reducing it.



One man's meat..., Ruairaidh Petre, Executive Director, Global Roundtable for Sustainable Beef

The Global Roundtable for Sustainable Beef believes that beef can and should be produced sustainably and that this is possible in the regions and systems that currently produce beef. However there is an influential lobby that claims ruminant production systems cannot be sustainable and should be removed from our food system, despite the fact that they make use of 26% of the earth's surface that cannot produce human edible crops, and has the largest potential within food systems for mitigating climate change.

We know that demand side measures will do little to change the sustainability of production systems as it is clear that such measures would need to involve all global consumers. There are still 800,000 million undernourished people in the world, primarily lacking in protein. Therefore our efforts should be directed to producing high value protein in ways that do not deplete resources, but increase productivity, efficiency and sequester more carbon.

GRSB members are already implementing measures to dramatically improve sustainability and increase traceability through the supply chain. We are committed to demonstrating improvements and measuring their impact. Our private sector members are already investing significantly in such improvements and will continue to do so.

Only 3% of ODA for agriculture is spent on livestock, despite the fact that livestock accounts for 40-60% of agricultural GDP. That 3% could be most efficiently used through partnering with the private sector, which is already investing large amounts in livestock. With a relatively small contribution from donors, private sector investments can be leveraged in more sustainable directions and have a large multiplier effect on donor resources. We must focus our efforts not on trying to restrict consumption in niche markets, but by investing in sustainable production everywhere.

Re-thinking how we define waste, Ian McConnel, Global Commodity Lead - Beef, World Wildlife Fund (WWF)

Food waste is often measured simply as the amount of produced food that is not consumed. This represents the waste of natural resources in the production of this food without a social or economic benefit. However, it does not include the waste embedded in inefficient production. As food demand grows, we must reduce waste in both consumption *and* production systems to ensure natural resource use is sustainable. By redefining food waste in public debate we can create support for more efficient and sustainable production.



Healthy diets and adding value

Dairy Nutrition Initiative, Laurence Rycken, Technical Manager, International Dairy Federation

Livestock is vital for ensuring food and nutrition security and to achieving the SDGs. The International Dairy Federation, representing a global dairy sector responsible for over 75% of global milk production and engaging a broad range of stakeholders, is a wealth of knowledge, resources and networks. Milk is rich in bio-available nutrients and an efficient vehicle for delivering several critical macro and micronutrients. Dairy foods are instrumental in supporting the growth and development of young children. Milk and Dairy programmes offer many opportunities to promote good nutrition and healthy eating patterns. IDF, with its large member base provided an ideal platform to conduct with the FAO, the largest global review to date of school milk programme implementation. Data collected documented administration, promotion and the nutritional benefits of such programs. Beyond ensuring access to milk and dairy foods in schools, many of our members deliver nutrition education programs to foster healthy food and physical activity habits. These programs are at the nexus of agriculture, nutrition and education. In many cases, healthy eating patterns supporting choices from a wide range of food groups, not just dairy, are the focus of these education programs. Aligning resources and funding through public-private partnerships will not only improve reach and impact, it will ensure the target audience receives a consistent message at critical touch points.

The role of meat in a sustainable diet, Mary-Ann Binnie, Manager, Nutrition & Food Industry Relations, Canadian Pork Council, representative of the International Meat Secretariat

Malnutrition, which encompasses undernutrition as well as overnutrition and micronutrient deficiencies, is the number one cause of disease in the world according to the FAO. Maternal and child health are a priority. Focusing on the first 1000 days of life therefore has the greatest potential to prevent malnutrition. Improving the nutritional quality of complementary foods between 6 and 12 months of age is particularly important since introduction tends to be either delayed or nutrient-poor, particularly in low income populations.

In a major departure from conventional advice, Canada introduced new guidelines recommending meats as baby's first solid food advising parents to offer their six-month old infants meat, fish, poultry or meat alternatives two or more times a day on a daily basis. Australia, Denmark, New Zealand and other countries have similar recommendations.

It is an important health message with long-term consequences that needed to be communicated.

Members of the International Meat Secretariat have aligned with family physicians, general practitioners, mid-wives, pediatricians, nurses, dietitians, other allied health professionals to inform new mothers that:

- Iron is critical for a baby's growth and cognitive, neurological, motor and behaviour development,
- By about six months, a baby's iron stores start to diminish and those solely fed breast milk will not meet their iron requirements and are in danger of becoming anemic or iron-deficient,
- Iron deficiency during infancy and childhood may affect proper brain development, which is irreversible,
- Consumption of meat, poultry and fish, can contribute considerably to meeting infant iron requirements because the heme iron they provide is more readily absorbed than non-heme iron found in plant based foods such as infant cereals, and
- Adding meat to a meal helps the body absorb up to four times more iron from non-heme foods such as green vegetables, bread and cereals.



By investing in these communication efforts we're investing in an infant's health.

Health, safe meat with impact, Anne-Marie Neeteson, Vice President Welfare and Compliance, Aviagen, representative of the International Poultry Council

Each animal protein has its specific strengths – there is a place for all - we all work on responsible food production and continuous improvements.

Poultry is a healthy, lean meat, with a favorable environmental impact, no religious annotations, broad breeding programmes to improving health welfare and productivity at the same time. Poultry is a young sector – growing with 3% per year and a major meat. Poultry production is in the more remote, less favorable regions – with a low step-in threshold. With poultry our regions maintain their viability, and jobs - first in the less

favoured regions of Europe and the US, and now in the upcoming and new economies. Many new people will work with poultry the coming decades. The International Poultry Council (IPC), itself a decade old, has launched a new outreach and sharing project on poultry, starting February this year in Abu Dhabi with four working groups on Health and Welfare, Environment and Sustainability, Processing and Food Safety, Marketing and Consumption. Learning together by doing is the modus. Taking responsibility while sharing examples and best practices to start with – leading ourselves and the new people towards safe, healthy, welfare friendly poultry production. Our second aim is to learn to open up, as we have been quite quiet so far. Cooperation with the other livestock sectors and international organisations is therefore important for us – as we know: there is a place for all.

Concluding Remarks: Adolfo Brizzi, Director, Policy and Technical Advisory Division, IFAD

The Partnership Forum brought many wonderful stories that have clearly highlighted that this sector is full of trade-offs. The challenge for all actors involved in livestock will



be to address these trade-offs during the CFS negotiations. The CFS addresses global food security. How much of this food security can be delivered by the private sector? How much should be supported by smallholders? Increasing the sector's productivity is fundamental to reduce poverty and improve nutritional outcomes. How much investment will be needed to meet SDG2? The amount will be colossal, so we will need the contributions from public and private sources alike. The Forum demonstrated the role of partnerships but a key constraint to successful

public-private partnerships is the lack of trust. Some concerns arise from the rationale of outsourcing the delivery of public services to private sources or using public money to generate private investment. Often partnerships have high transaction costs. Nevertheless, partnerships will be needed to deliver the SDGs.