



Climate Change Taskforce position vis-à-vis the environmental challenges



INTRODUCTION - With the world's population rapidly climbing towards more than 9 billion by 2050, the debate about food security and the sustainability of production has obtained a renewed public attention. Sustainability may have different meanings, many important considerations are relevant to describe it. Meat and meat products are an intrinsic part of a balanced and healthy diet, livestock farming and production of food of animal origin play an important role not only in social and economic structures, but in rural areas as well.

The European livestock-meat chain experts, gathered through the joint UECBV-CLITRAVI Taskforce on climate change issues, encourage the raising of awareness on science based and updated facts and figures related to the measurements of the environmental performance of the livestock-meat production ever-deepening. Promotion of and reporting on continuous environmental improvement along the entire meat chain in order to engage in an open dialogue with economic operators is a key objective of the Taskforce.

The pool of experts supporting that platform recognize the role of the livestock-meat businesses worldwide in taking its environmental responsibilities seriously towards a sustainable production but definitely rejects the dissemination of misleading and alarmist messages¹ based on flawed methodologies². There is a common recognition that, especially when building a methodology for life cycle assessment (LCA³), only a broad-based and holistic approach extended to all aspects of the food production chain may allow drawing reliable conclusions to be passed on to the civil society.

One of the main targets of the Taskforce is to create a forum where stakeholders throughout the livestock-meat chain can come together to not only debate the issues with internationally recognized experts on environmental matters but to also give themselves a voice when it comes to informing policymakers about the facts. A holistic coordination of the stewardship of natural and human resources for continued agricultural production capable of supporting a growing world population nutritionally, socially, ecologically, and economically is hereby supported.

GHG EMISSION FROM LIVESTOCK - Similar to other activities linked to food and drink production, meat production and consumption have their connections and impacts on the environment.

Many scientific activities had been carried out on measuring and mitigating the environmental impacts of products of animal origin in several countries, and it is known that environmental win-win situations are achievable if they are well-matched with delivering more efficient production and saving costs.

In 2006, the FAO published the report "Livestock's Long Shadow". The authors of this report concluded that directly and indirectly, 18% of the global Greenhouse Gas (GHG) emissions could be linked to animal-based production. Many studies published since then showed that results in terms of environmental performance of the animal-based production vary greatly according to the methodology used.

At the end of 2009, the participants of the Taskforce launched a review of the scientific literature relating to the meat production Life Cycle Assessment (LCA) and the related

¹ Misleading messages are more and more diffused nowadays through the media and are often intertwined with broader moral concerns about the appropriate welfare of animals, the morality of meat-eating, anxieties about modern farming and worries about the influence of commercial and political interests on dietary habits.

² By the way of illustration, according to an oversimplified "World Watch report", the greenhouse gas emissions produced in the lifecycle and supply chain of livestock-meat account for as much as 51% of total emissions.

³ The key measurement tool to assess products' or services' environmental impact is the Life Cycle Assessment (LCA). Through LCA it is possible to account for all the environmental impacts associated with a product or service, covering all stages in a product's life, from the extraction of resources to ultimate disposal. LCA should be the tool that allows measurement of and reporting on current impacts, alternative scenarios and improvements achieved. LCA results are increasingly being considered as a key input in decision making processes.

contribution of the meat sector to global GHG emissions (considering the timeline from 1999 to 2009).

This review focused on the whole meat chain, and on beef and pork production⁴. It allowed the group of experts to gather some considerations that are now among the main arguments in this position paper:

- **According to the methodology used, results can vary significantly**
- **LCA methodologies are a relatively young science when it comes to food-related matters (especially for meat, due to the complexity and variability of the biological processes inside the animals)⁵**
- **Lifecycle analyses may lead to confusion when trying to compare different sectors (live-animals versus vehicles)**
- **Caution is needed before communicating “results” to society (overestimations may generate anxieties) and consumers**

The Taskforce aims to contribute to the performing of consistent measurements and reporting science-based methodologies being developed and applied around the world. By ensuring an important forum for the exchange of relevant information, the Taskforce on climate change issues aims to support informed and rational policy making that can also benefit from a specific dialog with some third-countries experts having a certain experience on the matter.

THE COMMITMENT OF RESPONSIBLE OPERATORS INSIDE AN EFFICIENT MEAT PRODUCTION CHAIN -The UECBV-CLITRAVI members committed to take up the climate change and sustainability challenges by promoting a modern and efficient meat production and processing, making use of the best available practices and technologies in order to promote the sustainability of their sector.

The EU operators believe that continuing to improve the efficiency of their businesses is essential to their current and future activities. Indeed it should be borne in mind that operators in the meat chain have made enormous efforts to comply with the EU-Directive 96/61 concerning integrated pollution prevention and control (the so-called IPPC Directive) and will continue to do so under the pending review to that Directive incl. the review of the so-called “Best Available Techniques (BAT)” in the meat industry. Such BATs are the most effective techniques to achieve a high level of environmental protection along the meat chain and will even further reduce GHG emissions while maintaining a competitive and viable future for the entire EU-meat chain. For those reasons, it is felt that a plan to deliver GHG emissions reduction while helping operators to secure their economic future is a priority of the sector.

Looking at the livestock-meat chain, while it is widely recognized that the anthropogenic activities are reducing and will continue to reduce their environmental foot-print, the natural outcomes of animal lifecycles, as a result of their biological component, allow a less ample level playing field of intervention in which the scientific underpin is essential. Despite the fact that many are the scientific research centers studying the possibility for improvement of the environmental performance of the livestock-meat sector sustainability, it is felt that a proper communication strategy is fundamental in order to provide all steps in the European meat chain with the standing and the understanding of the science and technology needed to get nutritious, high quality and affordable food to the table of a growing world population.

The Taskforce members strongly consider that an improved dialogue with all stakeholders all along the livestock/meat production chain is essential in order to achieve the best outcomes. Moreover, a pan-European Taskforce platform for exchange of research results through a European Network for Livestock/Meat development is

⁴ It was afterwards decided to include poultry production in the next steps.

⁵ There is a general agreement among the taskforce participants on the fact that life cycle assessment (LCA) methodologies, when applied to the particular food production involving animals, due to the complexity of the biological processes inside the animals, may easily lead to inappropriate estimations. The contribution of the EU livestock-meat production chain to climate change and global warming is frequently overestimated because of the lack of a unanimously recognised methodology for estimation.

expected to help interested parties to understand the operators' circumstances and realities, creating basis expected to facilitate the identification, adaptation and dissemination of promising technological and institutional innovations.

The Taskforce platform is feeding a database of scientific literature related to the environmental performance of the livestock/meat production chain, its members contribute to updating it on a regular basis with the aim on tracing and discriminating scientific facts from non reliable figures. A core part of this group's activity is the promotion of consistent messaging on environmental issues concerning the livestock-meat chain within Europe and globally also through a positive use of media, detecting false information and facilitating knowledge flows amongst all parties interested in a constructive and science based channel of communication.

Optimisation for the EU livestock-meat CHAIN

Across Europe, the agri-food sector strives already to improve its resource use efficiency and management⁶ and is aware that there is potential for further improvement in several meat production systems, according to their specificities.

The Taskforce takes into account that according to the European Environmental Agency (EEA⁷), substantial progress in the EU has already been achieved since agriculture has reduced its CO₂ emissions by 20% since 1990. Furthermore, the EU agency states that agriculture represents only 9% of total GHG emissions in Europe while, for instance, Energy accounts for 59%.

The task-Force notes that maintaining permanent pastures and grassland based systems in Europe brings substantial benefits for the society (e.g. prevention of land abandonment, safeguarding biodiversity and water management in the countryside); while grass-fed ruminants also produce methane, research shows that pasturelands themselves reduce the CO₂ in the air through a process called "carbon sequestration". Much of the sequestration occurring is not recognised under international emission accounting rules, highlighting the disparity between measured emissions and real emissions. The fact that this issue is not recognised at international level by the IPCC is a major challenge that needs to be overcome.

The optimisation potential for the EU livestock-meat CHAIN is considerable. Research also shows that improving livestock productivity whilst respecting science based animal welfare and promoting innovative solutions in the animal housing, improvements in the energy efficiency potential of farm buildings and of the machinery used in livestock farming and crop production have significant roles in order to mitigate emissions.

How operators in Europe are taking care of the sustainability of their activities?

Approaches in the EU livestock farming industry:

- Livestock nutrition & feed efficiency: by meeting the needs of modern breeds and reducing environmental pollution; by maximising home grown forages and sources of dietary protein
- Livestock reproduction: by selecting genetic traits within breeding stock that improve sustainable livestock farming; by improving female fertility and reproductive efficiency
- Livestock management: Developing husbandry systems to protect and improve rural environments

⁶ E.g. : Suckler cows systems are usually maintained under extensive systems, taking advantage of the natural resources existing in the areas where they are located, and receiving nutritional supplements in the seasons when there are fewer natural resources. These systems depend a lot on the fattening ones for the survival and complementarily of the pastureland systems. The calf fattening sub-sector's origin lies in demographic growth and the economic development of the Mediterranean countries in the sixties, which made it necessary to increase meat production; to do this, farms were created that specialized in buying calves and feeding them, using cereals to do so, because the climate conditions make pasture production low. These calf fattening system are characteristic from the Mediterranean area and are based on the use of cereal-rich feeds adapted to the productive capabilities of those countries, whose climatology reduces the availability and raises the production costs of forages. The use of very specialized beef breeds with high feed intakes and early age at slaughter (9-14 months of age and 450-550 kg body weight) and a low proportion of dietary fermentable fibre and a very high nutritional efficiency in meat production results in lower emissions of GHG.

⁷ Greenhouse gas emission trends and projections in Europe 2009.

Approaches in the EU livestock-meat industry:

- Optimization of transport movements
- Use of recyclable industrial packaging
- Optimization of energy use at production sites.
- Awareness-raising process among staff on consumption of hot and cold water
- By-products from sewage treatment plants are bio-degradable and used centrally for generation of green electricity in biogas installations.

Further to continuously look at promoting the implementation of the best possible solutions, taskforce members closely monitor legislation, and keep up with state-of-the-art technology and scientific findings from their mutual cooperation and their interaction with the competent European authorities and international research bodies. This way, they can quickly embrace new opportunities.

The chain's operators inside the global EU food production system are dealing with a singular regulatory pressure which challenges the EU production by way of increasing production costs. Those operators are regularly looking at cost-effective and sustainable advances in efficiency and resource optimizations.

Many companies in the European livestock-meat sector have realised that by investing in energy-efficiency measures, responding to changing consumer buying patterns and ensuring sustainable business practices in their supply chains, they can operate efficiently and are seeking to create value in new ways and further consider the use of eco-innovation solutions for a better resource management⁸. Technology is seen as a way of cutting costs and of addressing environmental concerns and as a tool to increase the environmental performances and final outcomes when it comes to the balance (estimations).

VIEWS on CAP and climate change - The EU livestock-meat sector is going through the up-mentioned and many other good practices in order to tackle the sustainability challenge and the Common Agricultural Policy (CAP) reform should aim at promoting these partnerships and good practices rather than exploring new regulations, source of an increase of production costs which further hamper the competitiveness of the EU agriculture and the EU agri-food sector.

The future EU CAP should encourage the efforts of the farmers, farmers-owned businesses and meat businesses to undertake climate change mitigation actions while striving to adapt practices.

EU measures aimed at increasing the resilience of the EU farming systems, improving livestock management, meat and meat processing businesses and promoting eco-innovation for present and future production should be key factors for a long-term policy response. Agri-environmental measures within the second pillar of the CAP are already making a substantial contribution to climate change mitigation, although these measures could be improved by introducing new tools for reducing GHG emissions while promoting a sustainable EU livestock-meat production CHAIN.

A strong **CAP should support responsible EU meat CHAIN operators** in facing the sustainability challenge through cost-effective employment of sustainable practices and innovative technologies over a better resource management and "on-farm" sustainability.

SOME RECOMMENDATIONS ON THE FUTURE EUROPEAN POLICY FRAMEWORK

The actions of the Taskforce also seek to consider how environmental concerns are integrated into the EU policies. Moreover, the aim is to spread evidence-based

⁸ Among the others: water management, the combustion of tallow in steam-boilers replacing the use of fossil fuel and anaerobic digestion of animal by-products. Key by-products of anaerobic digestion include digested solids and liquids, which may be used as soil amendments or liquid fertilizers. Methane, the primary component of "biogas," can be used to fuel a variety of cooking, heating, cooling, and lighting applications, as well as to generate electricity. Capturing and using the methane also precludes its release into the atmosphere, where it has twenty-one times more global warming potential than carbon dioxide. The UECBV members are currently involved in three EU projects on bio-pesticides production starting from ABP ([APTAR](#)), on waste-water management for the livestock-meat industry ([WASTERED](#)) and on the use of a mini anaerobic digester (miniAD) of animal by-products as eco-innovation to be implemented at plant level to test the cost and benefits of renewable energy production.

information on the current situation in the EU meat sector with the purpose of concretely assessing perception over reality.

Policy makers, national and community organizations should use improved information, strategies and processes to develop better policies, innovative solutions, and strengthen their capacity to improve livelihoods and management in EU livestock-meat sector. Some basic recommendations from the livestock-meat sector are listed hereafter:

- ✚ The environmental challenge is, and should continue to be, a **non competitive issue**. Consequently, measures to limit livestock emissions and related meat business should not put the economic viability of this business at risk. Lowering EU production capacity could put at risk local economies and negatively influence food security; furthermore, the production and related emissions could only be transferred elsewhere (carbon leakage risks).
- ✚ The optimisation potential for the EU livestock-meat CHAIN is considerable. This potential should be included in the assessments, LCA practitioners should always include possible optimization steps for innovative processes otherwise LCA would become a tool which tends to hinder innovation
- ✚ It's obvious that **Europe is continuously loosing its own animal production**. This loss carries an important risk associated to the strategic role of the sector. Not only related to the self- sufficiency in high-quality protein source but also to the progressive loss of the social and environmental benefits that they generate in Europe.
- ✚ In our opinion the environmental balance of the animal production is more benefit than negative and we would like to draw your attention to the possible dramatic effects into the country and the environment that may cause the disappearance of the farmers and the animal production in our rural areas.
- ✚ The role of the EU decision-making system in managing the complex interdependencies within our societies and economies, and between these human systems and natural systems should enhance both **research dialogue and governance reform**.
- ✚ A shared vision for **long-term global action** to combat climate change must be guided **by continuously updated science**.
- ✚ Any environmental labelling initiative for food shall undergo a proper impact assessment and be based on a **scientifically reliable methodology**.
- ✚ FAO estimates that, with a global population of 9.2 billion people by 2050, food production will have to nearly double over levels attained in 2000, and the EU sector should be in a position to face this challenge. The formulation and implementation of **climate change and food security strategies** should benefit from greater awareness of the potential synergies and trade-offs between these two policy areas within the agricultural sector.
- ✚ Long-term and transparent financing mechanisms for the large-scale deployment of **clean technologies** should be created.
- ✚ The naturally variable, biological nature of agricultural emissions must not be disregarded when selecting suitable mitigation options.
- ✚ International competition for industry needs to be safeguarded on a global level. The Task Force strongly supports and encourages starting a process with the intention that industrial sectors exposed to international competition have equivalent obligations; this would ensure compliance with the rules of the EU single market and avoid distortions of competition.

