Background note: Sustainable healthy diets in the Effort Sharing Regulation

Reducing greenhouse gas emissions from agriculture: addressing food demand

Among the options to reduce greenhouse gas (GHG) emissions from agriculture, demand-based strategies remain underemphasised.[1] **Amendment 45** to the draft Environment Committee report on the Effort Sharing Regulation draws attention to the fact that agricultural emissions are linked to food demand, and that Member States have an important opportunity to mitigate emissions by implementing strategies to promote sustainable consumption.

The food system is a major contributor to climate change

Final food consumption is responsible for **31% of total EU greenhouse gas (GHG) emissions**.[2] Globally, the food system contributes at least 19-29% of all emissions, with agriculture causing approximately 25% of the emissions total.

GHG emissions are highly dependent on diet

A large number of new studies have confirmed that different food consumption patterns have very different emissions profiles.

> "GHG emissions are highly dependent on diet. Even foods that provide similar nutrition and have similar impacts on health have markedly different lifecycle environmental impacts." [Tilman et al., 2015, Nature][3]

Transition towards sustainable healthy diets: triple win for economy, climate and health

Promoting sustainable healthy diets contributes to the European Commission's key ambitions of economic prosperity (growth and jobs) and climate action, delivering co-benefits for the economy, environment and health.

Taking action to promote sustainable diets could significantly reduce GHG emissions.[4]

> "Our review showed that reductions above 70% of GHG emissions and land use, and 50% of water use, could be achieved by shifting typical Western diets to more environmentally sustainable dietary patterns." [Aleksandrowicz et al., 2016, PLOS One, systematic literature review][5]

Eating patterns that are more environmentally sustainable are also consistently associated with better health. Unhealthy diet is the single largest risk factor for the entire burden of disease and premature death in Europe, contributing to cardiovascular diseases, cancers and type-2 diabetes, as well as obesity. Chronic diseases cause healthcare spending of around **€700 billion a year across the EU** and a significant loss in productivity.[6]

> "Across studies, consistent evidence indicated that a dietary pattern higher in plant-based foods (...) and lower in animal-based foods (especially red meat), as well as lower in total energy, is both healthier and associated with a lesser impact on the environment." [Nelson et al., 2016, Advances in Nutrition, systematic literature review][7]

Thirdly, improved diets can reap significant cost savings: a recent study estimated the health and environmental co-benefits of such a change to be in the range **of 1–31 trillion US Dollars**, equivalent to 0.4–13% of global GDP in 2050. [8] Sustainable healthy diets can also create opportunities to address other food system challenges, like antimicrobial resistance (AMR) and improve added value for farmers.

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Technology alone will not deliver

Both demand-side strategies and improvements in farming methods and technologies will be needed to advance towards a robust climate mitigation programme for the food system. However, technological solutions alone will not deliver the required reductions, and will miss the opportunity to achieve the significant co-benefits for environment, economy and health.

> "Not even under optimistic assumptions regarding technological changes do emissions from either the current diet or the 2050 baseline diet meet the [climate reduction] target." [Bryngelsson et al., 2016, Food Policy][9]

> "Technological mitigation options in the agricultural sector have also the capability of decreasing non-CO2 GHG emissions significantly. However, these technological mitigation options are not as effective as changes in food consumption. Highest reduction potentials will be achieved by a combination of both approaches." [Popp et al., 2010, Global Environmental Change][10]

> "But even if livestock producers the world over were to shift to the most efficient practices currently available, this move would not be enough to stave off an untenable upward trend in livestock-sector emissions." (Chatham House, Royal Institute of International Affairs, 2015)[11]

Sustainable diets will improve food security and cement Europe's global leadership role

Preventing dangerous climate change, curbing environmental degradation and ending the 'dual burden of malnutrition'[12] are among the most pressing challenges facing the world today. Fortunately, strategies to mitigate climate change, preserve ecosystems and improve food and nutrition security are characterised by mutually reinforcing synergies, rather than trade-offs.[13] A recent US study, for instance, indicates that the number of people that can be healthily fed per hectare increases in parallel with the sustainability of a diet.

A large number of new studies have confirmed that diets with reduced consumption of animal products (meat, eggs, dairy) are less GHG or land intensive than, and represent a nutritional improvement on, current average diets.[14] However, animal farming can make a positive contribution to a balanced diet, and to food and nutritional security, as long it does not compete with land able to produce human-edible food.[15]

Studies estimate that realistic changes in eating patterns, not requiring excessive deviations from current norms, could reduce food-related greenhouse gas emissions **by up to 50%.**[16] For example, the Mediterranean diet – high in vegetables, cereals, nuts, pulses and fruit, with a moderate intake of fish and dairy and low in red meat and sweets – can improve environmental impact, while being tasty and nutritionally balanced.[17]

Promoting sustainable healthy diets will not only contribute to the EU's economic and climate ambitions, but will also support Europe's role as a global leader for peace and prosperity in the world, particularly in the framework of achieving the Paris Agreement and Sustainable Development Goals.

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