

# Aligning food pricing policies with the European Green Deal

True Pricing of meat and dairy in Europe, including CO<sub>2</sub> costs

**A Discussion Paper** 



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"There is no way to address climate change, biodiversity loss and our healthcrisis without changing the food systems and food prices".

With regards,

True Animal Protein Price Coalition Jeroom Remmers | Director TAPP Coalition January 31<sup>th</sup> 2020 Page

# Introduction

In August 2019, the UN climate panel IPPC<sup>1</sup> called upon countries to radically change land use and food patterns, shifting towards plantbased diets and reduced meat consumption. This is urgently needed to fight climate change and realise the climate goals (Paris Agreement), protect biodiversity and prevent a food crisis after 2050. According to scientists, western countries like EU countries even need to cut their beef and pork consumption by 90 percent if humanity is to survive the next century<sup>2</sup>. And they say a meat tax might be the best way to achieve it. According to a new study, by 2050 the environmental costs of present-day food production and GHG emissions will almost double, as the Earth's population rockets to 10 billion and more of the world switches to meat-rich diets. Reducing meat consumption also benefits our health and reduces healthcare costs. A report by The Lancet Commission on Obesity<sup>3</sup>, released January 2019, said a tax on meat was an example of the urgent action needed to address the greatest threats "to human and planetary health" - obesity, under-nutrition and climate change. A University of Oxford study<sup>4</sup> argues emissions pricing on food could avert more pollution than is generated by the aviation industry, as well as save half a million lives and one billion tonnes of greenhouse gas emissions a year, if implemented in 2020. The analysis suggests beef would have to be 40 percent more expensive to pay for the climate damage caused by its production. Milk and other meats would need to increase in price by up to 20 percent. The study estimates the suggested price increase would result in a 10 percent reduction in the purchase of these foods. Another Oxford study, "Health-motivated taxes on red and processed meat: A modelling study on optimal tax levels and associated health impacts", described for 140 countries, including nearly 15 EU counties, how taxes on red and processed meat reduce healthcare costs and make people live longer in good health. The consumption of red and processed meat has been associated with increased mortality from chronic diseases, and as a result, it has been classified by the World Health Organization as carcinogenic (processed meat) and probably carcinogenic (red meat) to humans. A policy response is to regulate red and processed meat consumption similar to other carcinogens. The FAO and WHO are also proposing new integrated plans for healthy and sustainable diets<sup>5</sup>. To implement these plans, true cost pricing methods are needed, including the pricing in of health and environmental impacts, so people with shift away from animal to plant based proteins.

#### Content of the report

In this report, policy options are presented on how the EU Commission and EU Member States could act to better price meat, including costs for the environment and costs for the farmer, in a way that benefits farmers and consumers.

Chapter 1 we will give an update on True Cost Accounting for food and present plans for EU Member States to introduce 'fair meat prices' including environmental costs, according to True Cost Accounting methods to price externalities like GHG emissions and biodiversity loss (priced at 90 euro/ton CO<sub>2</sub>). Meat could be the first food product for public true pricing.

Chapter 2 describes the Dutch case of a fair meat price and how revenues are proposed to be used. The policy proposals are based on a CE Delft report 'Sustainability charge on meat' and they are similar to TAPP Coalition proposals for a Dutch 'fair meat price', rising up to 40 percent, including external costs. Dutch public support for the TAPP Coalition proposals is high: the plans are supported by 63% of Dutch consumers, if revenues are used to compensate consumers and farmers.

Chapter 3 will describe advantages for farmers and consumers, when revenues are used to compensate them.

Chapter 4 describes policy proposals for European Green Deal, Farm to Fork Strategy and Agriculture subsidies (CAP), including 'fair meat prices' for the EU Commission and EU Member States, based on the CE Delft report, but with a small difference on timing of tariffs. The TAPP Coalition proposes to start the fair meat price in 2022 or later, with 10 eurocent/100 gram meat for all meat products. The idea is to increase tariffs every year up to 2025. For 2025 and 2030, we propose the CE Delft proposals for tariffs to be adopted. CE Delft tariff proposals for 2021 might be too low and soon.

Chapter 5 presents policy proposals for the EU towards COP26 (Glasqow) and COP15 (Biodiversity CBD Summit in China).

Chapter 6 includes background information on meat related topics like climate change, biodiversity loss and health.

Chapter 7 includes 7 benefits of an excise duty on meat (fair meat price) compared to increases in VAT tax tariffs on meat. Chapter 8 includes Recommendations.

https://www.ipcc.ch/2019/08/08/land-is-a-critical-resource\_srccl/

https://www.nature.com/articles/s41586-018-0594-0.endf

https://www.notlobesity.org/what.we-do/projects/larcet-commission-on-obesity https://www.notlobesity.org/what.we-do/projects/larcet-commission-on-obesity https://www.ndph.ox.ac.uk/news/reduce-global-warming-by-eating-less-beef

http://www.fao.org/3/ca6640en/ca6640en.pdf

Annex 1 includes 25 proposals for EU Commission actions for Food Pricing policies within the European Green Deal Roadmap in 2020 and 2021, including a proposal for a carbon border adjustment tax mechanisms for the meat sector to make sure meat imports to the EU will be taxed in similar way compared to meat products produced in the EU.

Annex 2 includes proposals for 10 EU countries, including Germany, Denmark and the Netherlands, for reduced VAT tariffs on vegetables, fruits and plant-based meat/dairy alternatives, from 10% (on average) now to 5% in the future, the EU minimum VAT tariff allowed. We show 10 EU countries that have already reduced VAT tariffs for vegetables and fruits. We propose to subsidize vegetables and fruits by 20 percent, as was recommended by the WHO, at public services like schools. Annex 3 and 4 show relevant infographics, meat facts, meat price facts and solutions for reducing meat

## Management Summary

This discussion paper is written by the TAPP Coalition (True Animal Protein Prices). This organisation comprises leading farming, health, food and environment organisations, as well as charities. The report is based on a report by CE Delft: "A Sustainability Charge on Meat', commissioned by TAPP Coalition. Both reports will be presented and discussed February 5th 2020 at the European Parliament. The proposal is generally in line with food recommendations for the European Green Deal and Farm to Fork Strategy from a range of European civil society organisations<sup>6</sup> and with recent recommendations by three leading European health NGOs (EUPHA, EPHA, EHN) "Farm to Fork needs an effective consumption strategy"<sup>7</sup>. EU farmers will benefit  $\in$  10-15 billion per year, a new source of income. The proposal for a fair meat price, sustainability cost included, is set out in a new report written by CE Delft, where this is mentioned 'meat with a sustainability charge'. It calls for a new pricing model to be included in the European Green Deal and Farm to Fork Strategy. A key aspect of the proposal is that revenues from the 'fair price' (sustainability charge), estimated at  $\in$  32.2 billion per year across 28 EU Member States by 2030, could be used primarily to help farmers to invest in more sustainable agricultural practices. It could also be used to lower VAT and consumer subsidies on vegetables and fruits, provide financial support for low-income households, and support developing countries to adapt to climate change and protect forests. Including the environmental cost of animal protein in the price is a crucial element of meeting EU targets for climate, biodiversity, public health, and animal welfare.

The scale of potential environmental savings is outlined in the report. Fair meat prices in Europe could lead to a reduction in CO<sub>2</sub>-eq. emissions of up to 120 million tons of CO<sub>2</sub> per year. This equals all CO<sub>2</sub> emissions from four EU Member States: Ireland, Denmark, Slovakia, and Estonia, and nearly 3% of all EU greenhouse gas emissions. The plan fits perfectly in Frans Timmermans' new EU Green Deal. There are additional benefits to a sustainability charge. If EU meat consumption goes down and plant based protein consumption goes up, healthcare costs will go down too, as Europeans eat roughly 50% more meat than is recommended in dietary health guidelines. Billions of Euros every year can be saved in healthcare costs. The TAPP Coalition commissioned CE Delft to design a 'fair price' on meat, a sustainability charge based on external costs, and to give an indication of effects of implementation on the EU-28 level. If EU Member States introduced 'fair meat prices', prices would increase by 47 euro cent per 100 gram beef/veal, 36 euro cent per 100 gram pork, and 17 euro cent per 100 gram chicken by 2030. This reflects the fact that environmental costs per kg of beef are highest. This would lead to a reduction in chicken, pork, and beef consumption of 30%, 57% and 67% by 2030. CE Delft proposes that the charge rate gradually increases from 10% of the external costs in 2021 to full coverage by 2030, including all environmental costs.

	2021	2025	2030
Beef/veal	€ 0.42	€ 2.22	€ 4.77
Pork	€ 0.32	€ 1.69	€ 3.61
Chicken	€ 0.15	€ 0.80	€ 1.73

Source: CE Delft calculations based on the Environmental Prices Handbook, EU28 version (CE Delft, 2019); methodology according to (CE Delft, 2018a).

Note: The environmental costs of greenhouse gas emissions are based on the specific environmental price for the reference year. The charge rate gradually increases from 10% of the external costs in 2021 to full coverage in 2030.

	Chicken	Pork	Beef and veal
Current consumption (million tonnes)			
	8.5	10.8	3.3
Consumption after introduction of the Meat Sustainability Charge	(million tonr	ies)	
2021	8.5	10.6	3.3
2025	7.8	9.0	2.6
2030	5.9	4.6	1.1
Change (%) relative to current consumption level			
2021	-1%	-1%	-2%
2025	-8%	-16%	-21%
2030	-30%	-57%	-67%

Table 2 - Meat consumption (chicken, pork, beef/veal)

Source current meat consumption: FAOSTAT (2012) for EU28 and CE Delft (2012); (2018a); (2019). Substitution effects (from beef to pork to chicken) are taken into acount.

<sup>&</sup>lt;sup>6</sup> https://mk0eeborgicuypctuf7e.kinstacdn.com/wp-content/uploads/2019/12/EU-FPC\_Open-Letter-F2F.pdf

<sup>7</sup> https://epha.org/wp-content/uploads/2019/11/letter-to-timmermans-farmtofork-final.pdf

The main impacts of a sustainability charge would be net EU welfare impacts (benefits) of  $\in$  8.8 billion per year by 2030 ( $\in$  7.9 billion climaterelated). EU-28 Member States would receive revenues from excise taxes on meat, based, on True Price Accounting (external costs) of  $\in$  32.2 billion per year. The TAPP Coalition advises revenues be used for farmers (31-46%), to lower VAT tariffs and consumer subsidies on vegetables and fruits (22-36%), as compensation for low-income households (19%) and support for developing countries to double nature reserves/forests, to reduce greenhouse gasses, and to help adapt to climate change (12%). Revenues can be used for payments to EU farmers:  $\in$  10-15 billion/year and to consumers:  $\in$  7-12 billion/year for subsidies/lower VAT on vegetables, fruits, and plant-based food; and  $\in$  6 billion for compensations of low-income households.  $\in$  4 billion is available for developing countries. If  $\in$ 15 billion/year would be granted to 2.5 million EU farmers, eg. to all specialized live stock farms or all mixed farms incomes would rise by  $\notin$  6000/yr.

#### The Dutch 'fair meat price' success case

In the Netherlands, the TAPP Coalition proposals for meat and vegetable prices are supported by a majority (63%) of Dutch consumers. According to an inquiry amongst 1000 Dutch people (DHV Insights, Oktober 2019), 62% of Dutch liberal party VVD voters support the TAPPC fair meat price plan, 61% of Social Democrats, 54% of Christian Democrats and 73% of Dutch Greens. On 13 December 2019, the (former) Dutch Finance Minister Menno Snel committed for the Dutch Parliament to make a fiscal plan including the TAPP Coalition proposal for a 'fair meat price'. TAPP Coalition expects a lower VAT on vegetables and fruits, and subsidies for farmers are also included. This plan will be handed over to the Dutch Parliament in early 2020, where it will be included in a plan for fiscal reforms. We realise proposing and implementing fair meat prices in nearly 30 European countries, will be much more difficult. In 2018, Marco Springmann of Oxford University published another proposal for taxes on meat. This was a health motivated plan, so it was different from the more environmental motivated TAPP Coalition proposal. The optimal tax level for processed and red meat was calculated by Springmann et al. to reduce health care costs in 140 countries, including ten European countries who together could reduce  $\in$  8,94 billion per year in health care costs, attributed to the consumption of red and processed meat. Health taxes on meat are proposed to realise reduced health care costs. Tax revenues of health taxes on meat will total  $\notin$  26,6 billion per year in the 10 selected European countries, including France, Germany, UK, Spain, Italy, Poland, Netherlands, Sweden, Belgium, and Denmark.

#### Role of the European Commission, EU Member States and European Parliament

The TAPP Coalition proposes that EU Member States start pricing meat with 1 euro per kg meat. Later on, the minimum tariff could be differentiated for beef, chicken and pork as proposed by CE Delft for 2025 and 2030. To maintain a level playing field and prevent 'cross border shopping of meat in countries without fair meat prices, the EU, supported by European MEPs, could mandate or facilitate a minimum tax on meat consumption and carbon border tax adjustment mechanisms for imported meat products, to make sure cheap imported meat in countries without any environmental tax or policy, is taxed when entering the EU. The tariffs are based on calculated environmental costs, including greenhouse gas emissions (90 euro/ton CO<sub>2</sub> eq), air pollution and land use/biodiversity loss. EU Member States will be responsible for enacting 'fair meat price' excise taxes, similar to the excise taxes on alcohol, tobacco, fuels and aviation. For gasoline, heating and electricity, the EU has also mandated a minimum excise tax for its Member States and the EU tries to harmonise aviation taxes in different EU countries. European harmonised 'fair meat' taxes would reduce market disturbances. Increasing VAT rates on meat could be an option, but price increases may be too low to change meat consumption, and price increases will not include all external environmental costs. In addition, the TAPP Coalitions asks the EU Commission to reduce subsidies for meat and dairy production and take the lead in global CO<sub>2</sub>-eq. reduction programmes for the meat- and dairy sectors and for CO<sub>2</sub>-pricing mechanisms to contribute to reduction. FAO expects global meat consumption to grow in 2050, compared to 2005, by more than 50% (beef), 43% (pork) and 125% (chicken) and by 25% in 2030 compared to 2015. Global annual meat consumption is also growing, with 1,2% (average 2014-2018). This is not at all in line with the Paris Climate Agreement.

#### Table 3 - Impacts of a European meat sustainability charge

	2021	2025	2030
Welfare impacts (€ bln.), of which:	0.3	2.5	8.8
Clim	ate 0.2	1.9	7.9
Environm	ent 0.4	2.8	8.9
Animal disea	ses 0.0	0.3	0.9
External bene	fits 0.0	-0.1	-0.2
Consumer and producer surp	lus -0.3	-2.5	-8.8
Government revenues (€ bln.)	6.1	27.3	32.2

Source: CE Delft calculations based on FAOSTAT (2012) and CE Delft (2012); (2018a); (2019).

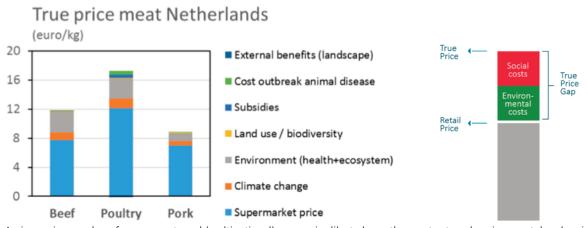
Note: Impacts not corrected for increased  $CO_2$  emissions due to greater consumption of meat substitutes.

We estimate this will offset 15-25% of the welfare gains (see Annex J of original report).

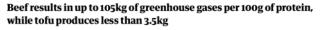
# 1. True pricing of food, starting with meat

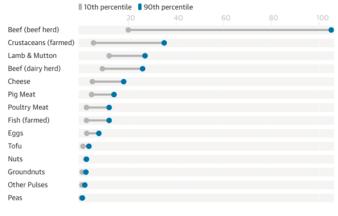
The price we pay for food in supermarkets is only half of the true cost involved, according to FAO, the United Nations World Food Organization, in its report "Natural Capital Impacts in Agriculture<sup>8</sup> (2015). The total hidden environmental costs of global food production amount to USD 2330 billion per year (2,3 trillion USD: The calculations carried out by the FAO have indicated that the hidden costs of food production are about the same as the market value. This means that, on average, food would be twice as expensive if all of the current hidden costs were charged to consumers. If we would do so, and give pollution a price (like we do with CO<sub>2</sub>-taxes for fossil fuels), consumers would choose food products with less environmental and health costs. In this way, food will become cheaper in the end, eliminating negative environmental costs. These insights are confirmed in the report 'The Hidden cost of UK food' (2017), calculating the cost of Consumer spending to 120 billion Pounds per year, with hidden costs reaching the same amount. The costs for obesity are highest, with a share of over 33%. According to a CE Delft report (2018) 'The true price of meat', pork should be +53% more expensive, beef +40% and chicken meat +26%, if all costs were to be included for.

Figure 1: The true price of meat including CO<sub>2</sub> price and environmental costs versus real supermarket price in euro per kg meat for pork, beef and chicken meat (CE Delft, 2018)

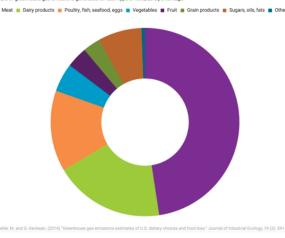


An increasing number of governments and (multinational) companies like to know the exact external environmental and social costs of food, so they can determine how externalities can be reduced. Companies can do a lot by themselves, but governments have another role to play to use policy instruments to reduce external costs (fiscal policies, subsides, laws, public education). If governments would step in, it makes sense to start with pilot products, which carry the highest environmental or health externalities. Starting with True Price Accounting in Food, meat could be this pilot product, whereby European countries would include costs for environmental damage and biodiversity loss in the price of meat. Excise duties on meat and subsidies for clean production can be used. Per kg, beef/lamb products have the highest CO2-footprint, followed by cheese, pig and poultry meat, as shown below:





Greenhouse gas emissions from average food consumption Share of greenhouse gas emissions generated for each type of food, as a percentage.



Guardian Graphic | Source: Poore and Nemecek, Science

<sup>8</sup> http://www.fao.org/fileadmin/templates/nr/sustainability\_pathways/docs/Natural\_Capital\_Impacts\_in\_Agriculture\_final.pdf

No one can expect a supermarket chain to decide to sell meat products with a 'true price', with price increases of more than 40%. Nobody would shop there if other supermarkets did not do the same. Governments have to take leadership in True Price Accounting of food products to create environments where consumers can find food where the most healthy product or food with the lowest climate footprint is also the cheapest option. Otherwise, consumers will continue buying unhealthy food or food with high climate or planetary footprints.

## True pricing food: the highest priority according to science, business and civil society

The Wageningen University President of the Board, Louise Fresco, promotes two important international food strategies, relevant for the European Green Deal, Farm to Fork Strategy and the EU agriculture subsidy reform:

- 1. Making healthy, plant based food cheaper, and meat products more expensive.
- Adopt a UN agreement on Food & Agriculture, a UN Food Panel, comparable with the IPCC and the Paris Climate Agreement. 2

This was presented 18 September 2019 during the Mansholt lecture 'The Future of Protein's in Brussels<sup>9</sup>. Louise Fresco and other scientists said that "OECD countries need to reduce animal protein consumption, e.g. by introducing 'true price' strategies including environmental costs. Animal feed should be based as much as possible on products not suitable for human consumption. Only 10 kg meat per person per year is a sustainable way of consuming meat. Most OECD countries nowadays have a consumption of 40 kg meat per person or more". Louise Fresco also published advice from Wageningen University for the new EU agriculture subsidy scheme for the next 7 years (2021-2027) in its report 'Towards a Common Agricultural and Food Policy', 2016, page 3110. The most important message to the EU Commission and to EU members states for the Common Agriculture Policy (CAP) is:

#### Make our diets more healthy and sustainable with a price that factors in true cost

"A food policy should, first of all, deliver a diet to the 500 million European consumers which is healthier and more sustainable. People in Europe today consume an excessive number of calories and their diets are unbalanced, containing too much red meat and not enough fish, fruit and vegetables. Balancing diets will to a large extent go hand in hand with making them more climate-smart. The first step in realising this will be to make consumers pay the true cost of food and remove price distortions. This should include environmental costs such as CO<sub>2</sub> emissions, for example, applying a polluter pays principle along the food chain (including in farming) and emission trading". Different NGOs, food multinational companies and banks support this vision of the Wageningen University for a greening the EU CAP, start UN action for Food and Agri Wand include UN Food & Agri goals within the Climate Summit (COP 25) and the Paris Climate Agreement. For instance, this can be read in reports by Unilever, the Business Commission, Triodos Bank, Investor network Rethinkx, EEB and CIWF<sup>11</sup>. European stakeholders agree, EU Commission and EU Member States now have to take the lead and change the way food is produced and consumed by True Pricing mechanisms. Fiscal reforms are mentioned most. Different policy proposals for fiscal reforms to include environmental or social externalities in food prices are developed for several European Countries. We mention two: One is health motivated, the other environmental motivated but conclusions are very similar-- meat prices have to go up with 40-100% to include environmental and health costs.

#### 10 conclusions from the European debate on true pricing food from the past few years:

- An increasing number of European food companies and banks are using True Cost Accounting for internal evaluations to reduce 1. environmental impacts in the food chain.
- The implementation of True Cost Accounting in food systems by governments will make sustainable and healthy food more 2. affordable, while unsustainable and unhealthy food becomes more expensive.
- Hidden costs can be recovered at the beginning of the chain, as this ensures sustainability and a direct reduction in costs. 3. But hidden costs can also be recovered from the consumer, if revenues will be used partly to pay farmers for more sustainability, and specific products have very high externalities and cleaner production will not make the change.

https://www.wur.nl/en/activity/Mansholt-Lecture-2019.htm and https://edepot.wur.nl/496402 https://www.wur.nl/upload\_mm/6/b/c/11791580-8cfd-4f29-a8ad-2d9748c787d0\_Towards\_CAFP\_LR.pdf https://www.unilever.com/sustainable-living/reducing-environmental-impact/sustainable-sourcing/transforming-global-food-systems/, https://www.unilever.com/sustainable-living/reducing-environmental-impact/sustainable-sourcing/transforming-global-food-systems/,

http://businesscommission.org/our-work/valuing-the-sdg-prize-in-food-and-agriculture, https://www.triodos.com/press-releases/2019/triodos-bank-calls-for-complete-change-of-food-and-agriculture-system and

https://www.rethinkx.com/food-and-agriculture, https://mk0eeborgicuypctuf7e.kinstacdn.com/wp-content/uploads/2019/09/Agriculture-and-climate-change.pdf

- 4. The government must ensure that harmful inputs become more expensive, according to the generally accepted principle: the polluter is held accountable (producer or consumer).
- 5. The government needs to reallocate subsidies and tax benefits that are currently going to polluting companies, so that they end up with sustainable companies.
- 6. According to recent research (The Lancet, 2019), the transition to a more plant-based diet is the way to save the climate and rein in the global obesity epidemic.
- 7. The cost of poor nutrition for health should be included in True Cost Accounting models. The cost of obesity alone is \$3 trillion a year worldwide, more than the total cost of climate and environmental damage of food production.
- 8. There is no time for delay. We need to work together, as a 'coalition of the willing'. The greatest threats to the future of humanity are the climate, the health crisis and soil fertility. With True Cost Accounting, we can focus on these.



#### **ENVIRONMENTAL PYRAMID**

FOOD PYRAMID

# 2. The Dutch case of a fair meat price and using revenues

Based on the conclusions in chapter 1, the TAPP Coalition, with its partners, developed a proposal for a fair meat price.

#### The Dutch 'fair meat price' success case:

In the Netherlands, the TAPP Coalition, formed by farmer-, food-, health-, environmental- and animal welfare NGOs, managed to write a proposal to the Dutch Government within 6 months for a 'Fair Meat Price' a new excise duty, based on environmental costs. The Dutch Government adopted the proposal and will present its plans early 2020 to the Dutch Parliament. TAPP Coalition hopes the proposals include additional payments to farmers, based on sustainability performances and reduced VAT rates on vegetables, fruits and plant based meat and dairy alternatives from 9% to 5%.

Dutch Ministry of Finance Menno Snel committed to present a fair meat price proposal to the Dutch Parliament on the 13th of December. His plan will be presented towards Parliament early 2020, within a broader plan with policy options for the next Government, which will be elected in March 2021. The TAPP Coalition demonstrated broad support from all kind of NGOs, ranging from farmers and nearly all Dutch youth organisations, backed up by 40 professors, scientists and business leaders. Also supporting the plan in a leading economics journal, ESB. The TAPP Coalition showed in an inquiry amongst 1000 Dutch people (DHV Insights, Oktober 2019) that a majority of 52% of the Dutch public supports a fair meat price, if revenues are used to reduce prices of vegetables and fruits and to make compensation payments to farmers and low income households. 62% of Dutch liberal party VVD voters supported the TAPPC fair meat price plan, 61% of Social Democrats, 54% of Christian Democrats and 73% of Dutch Greens. The largest Dutch newspaper didn't believe this and organized a poll amongst 19.000 of their readers. Here, it was confirmed that 63% of Dutch consumers support the true pricing plan for meat, vegetables and fruit. Based on the inclusive attitude of the TAPP Coalition, with an effort to try and benefit all, Dutch public support for the TAPP Coalition proposals is high: the plans are supported by a majority of Dutch consumers, if revenues are used to compensate consumers and farmers.

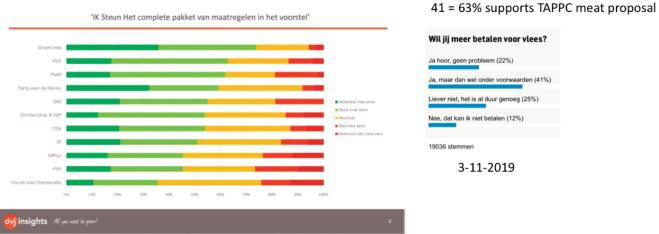
Partners TAPP Coalition: 11 companies, including 3 farmer organizations, 3 health organizations, 4 animal welfare-, 3 environmental-, 5 youth- and 5 food organizations

Greenpeace and Oxfam Novib supported a Manifesto fair pricing meat 20 eurocent/100gr.



## Supported by 63% majority of Dutch consumers

62% of Dutch liberal party VVD voters supports TAPPC fair meat price plan 61% of Social democrats, 54% Christian Democrats and 73% of Dutch Greens



## Support from 44 professors, scientist, CEO's

Naam	Onderwerp, instelling
Prof. Dr. Jacqueline Cramer	Duurzame innovatie, ondernemen, Universiteit minister VROM 2007-2010
Dr. Jan Terlouw Prof. Dr. Peter Kooreman	Duurzame economie, Natuurkundige, politicus ( minister Economisdche Zaken), auteur Gezondheidseconomie, Tilburg University
Prof. Pier Vellinga	Klimaat, VU
Prof. (em), Arnold Heertje	Economie, Universiteit van Amsterdam
Prof. Dr. Daan Van Soest	Milieu-economie, Tilburg University
Prof (em). Cees Withagen	Milieu-economie, VU
Dr. Sander Biesbroek	Onderzoeker Voeding en Duurzaamheid, afdelin Voeding en Gezondheid, Wageningen Universite
Prof. Jeroen van den Bergh	Economie klimaat en hulpbronnen, VU
Prof. Rick van der Ploeg	Economie, VU
Mr. Herman Mulder	True Pricing, Diverse functies
Prof. Mr. Willem Bruil	Agrarisch recht, Rijksuniversiteit Groningen, Bij: hoogleraar agrarisch recht
Drs. Cees van de Guchte	Waterbeheer, Directeur Deltares, Global Agenda International Organisations
Prof. Arjo Klamer	(Culturele) Economie
Prof. Dr. Hans Vedder	Economic Law, RUG
Dr. Mark Sanders	Economics of Transition and Sustainability, Univ Utrecht School of Economics
Prof. Karien Stronks	Public Health, Amsterdam UMC, locatie AMC
Dr. Wilma Waterlander	Public Health, Amsterdam UMC, locatie AMC, Pu
Drs. Karine van 't Land	Public Health, Amsterdam UMC, Public Health
Drs. Tamara De Weijer	Arts , voorzitter Vereniging Arts en Leefstijl
Prof. Irene van Staveren	Pluralist Development Economics, Achternaam
Prof. Dr. Dirk Schoenmaker	Finance and Accounting, Erasmus Universiteit, R Banking and Finance at the Rotterdam School o (RSM)
Prof. Dr. Dirk Dirk Bezemer	Economie en Bedrijfskunde, Rijksuniversiteit Gr Economie en Bedrijfskunde
Bob Hutten	Voeding , Directeur Cateringbedrijf Hutten
MsC Donald Pols	Klimaat , Milieudefensie, directeur
Mr. Ruben van Zwieten	Geloof en verantwoord ondernemen, Predikant/ Zingeving Zuidas
Drs. Marleen Janssen Groesbeek	Sustainable Finance, Avans Hogeschool, Sustain Accounting

Professor of of Management roningen,

/ondernemer/ inble Finance and Accounting

Prof. Dr. Jessica Kiefte-de Jong	Population Health with emphasis on lifestyle , LUMC (Department of Public Health and Primary Care/LUMC Campus Den Haag)
Drs. Nupur Kohli	Arts en adviseur gezondheidszorg , Gloal Shaper, World Economic Forum; Adviesraadlid Landelijke Vereniging van Artsen in Dienstverband
Dr. RS Kuipers, MD PharmD Remko Kuipers	Cardiologie, farmacologie, (persoonlijke titel)
Prof. Ingeborg Brouwer	Voeding en gezondheid, VU Amsterdam, Gezondheidswetenschappen
MsC Lotte van den Bosch	Voeding, klimaat, milieu, TAPP Coalitie beleidsmedewerker
ir. Jeroom Remmers	Voeding, klimaat, milieu, TAPP Coalitie directeur
Drs. Rens van Tilburg	Sustainable Finance, Universiteit Utrecht, Faculteit Recht, Economie en Bestuur
Drs. Volkert Engelsman	Duurzaam ondernemen , CEO Eosta
Drs. Maurits Groen	Duurzaam ondernemen , CEO MGMC
Ruud Koornstra	Duurzaam ondernemen , Nationaal Energiecommissaris
MsC Willem Blom	Impact investment & Internet ondernemen, CEO Plantbase
Drs. Thomas Peutz	Klimaat , Bestuurslid Climate Outreach en initiatiefnemer Klimaattafel Sociëteit de Witte
Drs. Peter Haring	Gezondheidseconomie, Unilever
Urgenda	Klimaat
Ir. Ruud Tijssens Willem Lageweg	Voeding, directeur Transitie Coalitie Voedsel
Prof. Ekko van Ierland	Milieu-economie, Universiteit Wageningen, Milieu-economie en

Natuurlijke Hulpbronnen

Wil jij meer betalen voor vlees?

A poll amongst 19.000 AD readers, the largest Dutch newspaper, showed 22+

The Coalition for a True Animal Protein Price (TAPP Coalition) - with widespread support from Dutch society - has been working on an intention for a fair price of food, including environmental costs, starting with meat and dairy products. Nowadays, our food consumption is increasingly linked with our health and our concern for the planet. Nearly seventy percent of the Dutch people are prepared to pay a fair meat price, including environmental costs, according to a survey from 2018 (Kieskompas). The TAPP Coalition commissioned an opinion poll by DJV Insights. This research shows that the majority of the Dutch population supports the 'fair meat price' proposal with increased meat prices per 100 grams of meat, on the condition that revenues are used for tax reductions on vegetables and fruits (9% to 5% VAT), compensation payments for low income households and payments towards farmers for sustainability and animal welfare measures. If the additional costs for a fair meat price are returned to all Dutch people and to farmers by a transparent 'Fair Food Prices Fund' and at least a third of this Fund will go to farmers for sustainability and animal welfare measures, then this is the most logical way to make a positive change. If we do so, our eating pattern will improve, while meat, eggs and dairy will perform better in terms of effects on climate, nature and animal welfare. In the meantime, we as citizens can continue to monitor the goals of the Fair Food Prices Fund, which we contribute to through a fairer meat price. We can do this in three ways: 1) through an online platform, using opinion polls; 2) through representatives of citizens and civil society, who together with officials and ministers to decide how the money from the Fair Food Prices Fund will be used; 3) through our own representatives in Parliament, who have the final say on government spending. It is not an additional tax that the treasury enters, nor a penalty on meat consumption. It is about an additional price that should have been in the fair meat price for a long time, in order to pay for the real social costs of meat. Thus, revenues will go back to society in a transparent manner: directly to farmers and consumers, but also indirectly to the environment, animal welfare and health.

The infographic below, explains the TAPP Coalition proposals.



The policy proposals are based on a CE Delft report 'A sustainability charge on meat'. The TAPP Coalition proposals for a Dutch 'fair meat price', is rising up to 40 percent, including external costs.

Year	Chicken	Pork <sup>1)</sup>	Beef/veal	Average increase
Supermarketprice in 2018 in eurocent/100 gr. (CE, 2018)	70	77,5	121,7	
2021	9,5	21,3	26,9	16 eurocent
2030	20,4	45	57	34 eurocent
Price increase 2021 - 2018	13,6%	27,5%	22,1%	19%
Price increase 2030 - 2018	29,1%	58,1%	46,8%	41%

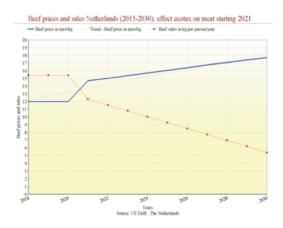
### Tarifs fair meat prices (in eurocent per 100 gram meat)

#### TAPP Coalition proposal based on CE/CLM report 'The true price of meat', 2018

## Impact on climate, health, animalwelfare, landuse

- 4,2 Mton CO<sub>2 eq.</sub> reduction 2030 (2,7 Mton in Netherlands)
- 2-3 Mton  $CO_{2 eq}$  reduction by climate subsidies for agriculture
- 10% reduction nr. of cows, pigs and chicken (150 mln euro/year)
- Less risks for heart disease, stroke, cancer, diabetes II
- € 0,4 1 billion /year lower health care costs
- €200 mln/year for animal welfare 110 mln animals less killed
- 4.000 km2 land use reduction = 22% surface of agriculture area NL

## Implementation fair meat price, effects on consumption



#### - 50% meat consumption in 2030

#### Implementation Fund Fair Food Pricing:

National government implements, but Fund Expenditures are transparant for all Consumers and ngo's control expenditures, together with the National government.

# 3. Advantages for farmers and consumers

## Advantages for Dutch farmers and consumers

First we will describe the advantages for Dutch farmers and consumers, followed by a chapter describing the advantages for European farmers and consumers. The Dutch proposal for a fair meat price will lead to government revenues of 1.176 up to 1.356 million euro per year in 2021-2030 (CE Delft, A sustainability charge on meat). Revenues will be recycled fully to benefit farmers and consumers. The proposal is to pay farmers 600 million euro per year till 2024, contributing to a 'fair price' for a sustainable product, with high animal welfare conditions. The TAPP Coalition and its partners, including three farmer organisations, supported by CLM consultancy, developed nearly 30 schemes to benefit farmers, in a report presented 4th of November towards Dutch Parliament: 'Samen op weg naar een eerlijke wijze van beprijzen<sup>12'</sup> (On the way to a fair way of pricing, together'. This reduces the external environmental costs of meat and dairy production (dairy cows will also be slaughtered in the end). In addition, livestock farmers can innovate and invest in environmental practices, farm-based natural production, climate and animal welfare measures. One example is a subsidy to switch to sustainably certified or organic agriculture and livestock farming, while also stimulating the demand for organic and sustainable food. The Netherlands is the only EU country that has no subsidies for organic farmers (no level playing field).

The proposed annual compensation in 2021 for farmers and arable farmers for social services in the field of climate, environment, nature and animal welfare amounts on average to 29,000 euros per pig farmer, 72,000 euros per poultry farmer, 18,000 euros per dairy farmer and 7,300 euros per arable farmer. The amount for poultry farmers is high, because the costs for environmental and animal welfare improvements turn out to be relatively expensive here and - due to the scaling up - large companies are involved. Dutch dairy farms could receive 322 million euros a year, pig farms 103 million euros, poultry farms 74 million euros and arable farms 101 million euros.

	Subsidies for sustainable farming / husbandry		Compensation for low income households - Payments of 120 euro per year for health care allowance	Compensation loss in revenu, administrative burden for slaughterhouses and others, costs for tax authorities, public information etc	Revenue per year
2021	600	280	270	26	1.176
2025	500	290	470	6	1.266
2030	450	300	600	6	1.356

## Revenues fair meat used (in mln €)

<sup>&</sup>lt;sup>12</sup> https://www.tappcoalitie.nl/images/Voorstel-Tapp-Coalitie-eerlijke-beprijzinng-4-nov-2019-1572859174.pdf

5 1 5	5	
Theme	Subsidies starting 2021	%
Animal welfare	201,5	34
Environment/Climate	306,6	51
Nature	92	15
Total	600 mln	100

## 600 mln euro/year payments for dutch agriculture

# 600 mln for environment/climate, nature, animal welfare

Sector	Subsidies starting 2021	%
Pighusbandry	103	17
Poultry farms	74	12
Dairy /cattle farms	322	54
Arable land/ other	101	17
Total	600 mln euro	100

# Average annual sustaiabilit susidies per Dutch farm

	Number of farms	Year, Source	Payment € per farm/ year (aver.)	Payment € per farm/ year (aver.), (excl. proposal nrs 16 en 18 on reducing nr. of animals by 1% per year till 2030)
Pig farms	3.500	in 2020: Pigbusiness	29.428	23.714
Poultry farms	1.030	in 2018: Rabobank	71.844	52.912
Dairy farms	17.000	In 2018: Rabobank	18.941	10.206
Arable farms	10.844	In 2018: CBS	7.285	7.285

150 million euro per year is proposed for an instrument leading to a massive reduction of GHG-emissions and nitrogen from livestock production, in a socially just way for farmers. From 2021 to 2030 a buy-out of could take place, representing 1% per year of the number of cows, pigs and chickens. This could be farms completely quitting animal farming. Many Dutch farmers are older than 55 and do not have a successor. Another option could be that livestock farms reduce their livestock, with 10% or more receiving compensation for income loss. This could be 125% of the market price of production rights. The Dutch manure and nitrogen surplus from livestock is very high, so by reducing the numbers of livestock, many environmental problems can be solved. Reducing the numbers of livestock also helps to balance meat production and consumption in the Netherlands, and to push prices up when demand goes down. It is expected that a fair meat price could lead to a reduction of 50% of meat consumption in 2030. The Netherlands, however, is exporting 70% of all meat produced. So a reduction of 50% meat consumption in 2030 by Dutch consumers will only reduce demand for Dutch meat products by 15%. The Dutch government is now reducing the numbers of pigs by 10%, so reducing the numbers of livestock with another 10%, will balance meat production and consumption and guarantees environmental benefits will really happen, when fair meat prices are introduced, and farm income will be protected.

#### Advantages for consumers

An amount equal to 25 percent of the annual revenue of the fair meat price is used to reduce the VAT on vegetables, fruit, meat substitutes, nuts and mushrooms from 9% to 5%. This is a very low VAT rate allowed by the EU. Several countries including Spain, Poland and Latvia are already doing this, see attachment nr. 2. The Netherlands can therefore also introduce it.

Finally, an amount of more than 40 percent of the meat tax revenue is used to compensate people with a relatively low income (60% lowest incomes in the Netherlands, including middle incomes) for the higher meat prices. This can be achieved by targeted income support for 60% of the population with the lowest incomes (lower income tax and higher benefits and allowances), and / or by a higher health care allowance for households with the 40% lowest incomes. This could be one month free health care allowance, or 120 euros extra per year for 5 million Dutch people who receive a health care allowance. All together this provides a net financial benefit for 40-60% of Dutch people (low and middle incomes) annually from 2021, even though meat becomes more expensive, depending on the form chosen for compensation. Moreover, according to various researchers (RIVM, S. Biesbroek, 2019), the combination of measures ensures a healthier population in the medium term, leading to (relatively) lower healthcare costs. This applies to everyone: employers, employees and the government. People will grow older and also healthier, and be able to work longer. The TAPP Coalition based its proposal on reports that it had drawn up by CE Delft consultancy and Center for Agriculture and the Environment (CLM). The TAPP Coalition proposes to introduce an excise duty on meat from 2021, which will be paid by slaughterhouses and meat importers (or by supermarkets, catering companies and restaurants). Meat exports remain untaxed. A low rate per kilo of meat is started in 2021, which increases annually until in 2030 all external environmental costs are included in the price. Along with this excise duty, the TAPP Coalition asks politicians to implement the following measures:

- 1) A Bill for a fair price of meat (and possibly also dairy and fish) from 2021;
- 2) Decisions for new subsidy schemes for the agricultural sector and incentives for consumption of sustainable food (around 600 million euros/year from 2021);
- 3) Amendment of the law 4% lower VAT on vegetables, fruit, nuts, meat substitutes (approx. 280-300 million euro/year);
- A law to compensate 40-60% lowest incomes in the Netherlands, eg by increasing health care allowance from 2021 for 5 million people; 600 million euro/year in 2030);
- 5) Compensations for parties negatively impacted and for implementation costs (e.g. slaughterhouses and meat importers for administrative burdens, decrease in turnover and retraining; butchers for revenue decline, Tax Authorities for new IT systems and enforcement. Information campaigns to inform the public and all involved (6-26 mln euros/year).

#### Advantages for European farmers and consumers

In a similar way, other EU Member States can implement the same policy proposals, benefitting their farmers and consumers. If all EU-28 Member States would implement fair meat prices (a sustainability charge on meat) as is proposed by CE Delft in their report 'A Sustainability charge on meat' (2020), these 28 EU countries would receive revenues from excise taxes on meat, based on True Price Accounting (external costs) of  $\in$  32.2 billion per year.

The TAPP Coalition advises revenues to be used for farmers (31-46%), lower VAT tariffs and consumer subsidies on vegetables and fruits (22-36%), compensations for low-income households (19%) and support for developing countries to double nature reserves/forests, reduce greenhouse gasses, and adapt to climate change (12%). EU farmers would receive € 10-15 billion/year. If €15 billion/year would be granted to 2.5 million EU farmers, incomes would rise by € 6000/yr. In 2018 there were 10 million farmers, of which 25% are specialized in livestock and 25% have mixed farms with arable crops and livestock.

Consumers would receive € 7-12 billion/year for subsidies and/or lower VAT taxes on vegetables, fruits, and plant-based food. In annex 2. a proposal is made to reduce VAT taxes on vegetables and fruits for 10 countries including Germany, Denmark, Austria and the Netherlands. Ten other EU countries already have done so, and others already have low VAT tariffs for all food products, so lower VAT tariffs for vegetables and fruits will not be possible, since the EU only allows a minimum VAT of 5%. In the European Green Deal however, it is proposed this minimum tariff could change. In this way, organic fruit and vegetables could have a very low VAT tariff, for instance. In addition, € 6 billion annually can be paid for compensation of low-income households, to make sure all consumers, poor or rich, can still afford to buy meat, even if prices would go up by 40 percent (just transition). All EU countries can find their own way forward, but it is important to do so, as well as to have enough public support for implementing fair meat prices.

A remaining € 4 billion per year is available for developing countries in supporting them in their climate and biodiversity policies. In this way, developing and middle income countries could be persuaded to agree with global commitments and agreements on climate change and biodiversity. If they do so, the chance will increase that the world will reduce climate change to maximum 1,5-2 Degrees Celsius temperature change. This in return will benefit European consumers and farmers, as a world with 3-4 Degrees Celsius increase would be a disaster for everyone. Australian wildfires show what could happen if temperatures rise up to 40-50 Degrees.

The TAPP Coalition proposal also answers a few important questions from European farmers, united<sup>13</sup> over the ambitions of the Green Deal and Farm to Fork Strategy, related to the CAP reform, how farmers will be rewarded through eco-schemes if they only face incurred costs and foregone income, and how the position of farmers is improved through the value chain. TAPP Coalition proposes to redirect an additional 15 billion euro per year towards European farmers (26% of EU support to farmers given in 2018, a total of 58,8 billion euro<sup>14</sup>), to be used for improving sustainability standards, animal welfare, reduce greenhouse gas emissions and increase biodiversity. The 15 billion euro per year for farmers is financed by consumers, paying the 'fair price' for meat products, including environmental costs. If this is done, EU Member States would have 32 billion euro per year of additional tax income. TAPP Coalition proposes to allocate nearly half of it - maximum 15 billion euro per year - for European farmers for eco-schemes (such as payments for nature at agriculture land, agroecological farming practices, reduced greenhouse gas emissions, increased soil carbon sequestration, and animal welfare improvements). If divided over all EU farmers -10 million<sup>15</sup> -, this would mean an income increase of 1500 euro per year per farm. If the 15 billion euro per year would be given to all EU livestock specialist farmers (25% of all EU farms), their income would increase by 6000 euro per year, to compensate for increased environmental and animal welfare ambitions and costs. TAPP coalition also proposes to use 2 billion euro out of 10-15 billion euro per year for paying farmers to reduce the number of animals by 10%. In this way, demand and supply of meat products will be more in balance at the EU level, if meat would become 40 percent more expensive. This will happen if consumers will pay fair meat prices, including all environmental and health costs. Without reducing the numbers of cows, pigs and chicken at EU level, EU meat exports would grow as EU meat consumption would go down. Reducing livestock also reduces EU GHG-emissions.

In 2018, Marco Springmann, Oxford University published a healthmotivated proposal for taxes on meat. The optimal tax level for processed and red meat was calculated to reduce health care costs in 140 countries, including many EU countries. In the table below, the TAPP Coalition and Springmann's proposals are compared. Ten European countries together can reduce € 8,94 billion per year in health care costs, which can be attributed to consumption of red and processed meat. This can be done by health taxes on meat, with tax revenues of € 26,6 billion per year in the 10 selected countries.

<sup>13</sup> https://www.copa-cogeca.eu/Download.ashx?ID=3726048&fmt=pdf

https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance\_en
 https://ec.europa.eu/eurostat/documents/3217494/9455154/KS-FK-18-001-EN-N.pdf/a9ddd7db-c40c-48c9-8ed5-a8a90f4faa3f

Table : Effect of 'fair meat	' prices in European	countries (health,	/environment related	taxes/kg meat)
Tuble : Effect of Tull Incut	prices in Europeun	countries (neurth)	cirvironnicitt related	tunes ng meut

		TAPPC proposal Fair meat price tax Revenue per year in € billion per year in EU28 countries (2030)	TAPPC Reduced Meat consumption/year (2030) with tax on beef of $ \in 4,77/kg$ , pork: 3,61/kg and $ \in 1.73/kg$ chicken	Oxford Univ. Health tax on red and processsed meat Proposal 2020: Tax revenues per country in billion USD/year	Oxford Univ. Health tax on meat proposal: change in price of meat after health tax on meat is introduced		Oxford Univ. Health tax on meat: reduced meat consumption per year in % after health tax on meat is introduced		Reduced attributable health care costs in billion USD/year after health tax is intro- duced
					Processed meat (A10)	Red Meat (A10)	Processed meat (A11)	Red meat (A11)	Processed meat (A14)
EU-28		32,2	-30% chicken -57% pork -67% beef	29,46 billion USD for 10 countries below = € 26,6 billion ∕yr					9,9 billion USD for 10 countries below=€ 8,94 billion ∕yr
France				4,3	68	18	33	0,9	0,95
Germany				8,11	166	28	37	3,4	4,13
UK				3,77	79	14	22	0,4	1
Spain	(5)			2,66	73	14	22	1,4	0,53
Italy				4,37	101	19	26	2	1,21
Poland				2,68	94	16	24	0,4	0,89
Netherl.				1,29	115	27	29	4,4	0,41
Sweden				0,94	185	27	37	1,6	0,31
Denmark				0,69	119	29	29	4,9	0,23
Belgium				0,7	105	20	27	2	0,25

Sources: TAPP Coalition proposal 'EU Fair Meat Price': https://tappcoalition.eu/nieuws; Oxford University proposal Health tax on meat Marco Springmann et al: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0204139 List of countries in Oxford University proposal: https://journals.plos.org/plosone/article/file?id=info:doi/10.1371/journal.pone.0204139.s001&type=supplementary

# 4. European Green Deal, Farm to Fork Strategy and Agriculture subsidies (CAP)

#### Role of the European Commission, EU Member States and European Parliament

The TAPP Coalition proposes that EU Member States start pricing meat with 10 euro cent per 100 g meat. Later on, the minimum tariff could be increased and differentiated for beef, chicken and pork as proposed by CE Delft for 2025 and 2030. To maintain a level playing field and prevent 'cross border shopping' of meat in countries without fair meat prices, the EU, supported by European MEPs, could mandate or facilitate a minimum tax on meat consumption and carbon border tax adjustment mechanisms for imported meat products, to make sure cheap imported meat from countries without any environmental tax or policy is taxed when entering the EU. The tariffs are based on calculated environmental costs, including greenhouse gas emissions (90 euro/ton CO2 eq), air pollution and land use/biodiversity loss. EU Member States will be responsible for enacting 'fair meat price' excise taxes, similar to the excise taxes on alcohol, tobacco, fuels and aviation. For gasoline, heating and electricity, the EU has also mandated a minimum excise tax for its Member States and the EU tries to harmonise aviation taxes in different EU countries. European harmonised 'fair meat' taxes would reduce market disturbances. Increasing VAT rates on meat could be an option, but price increases may be too low to change meat consumption and price increases will not include all external environmental costs (see chapter 7 Excise duty or VAT increase). In addition, the TAPP Coalition asks the EU Commission to reduce subsidies for meat and dairy production and take the lead in global CO<sub>2</sub>-eq. reduction programmes for the meatand dairy sectors and for CO<sub>2</sub>-pricing mechanisms to contribute to reduction. The FAO expects global meat consumption to grow in 2050 compared to 2005 by over 50% (beef), 43% (pork) and 125% (chicken) and by 25% in 2030 compared to 2015. Global annual meat consumption is growing by 1,2% (average 2014-2018). This is not at all in line with the Paris Climate Agreement, and the EU can take the lead and act.

## European Green Deal

Attachment 1 presents a list of 26 key actions for the European Green Deal, related to food pricing, presented in the Green Deal Road Map, with action points for the next 12 months. We consider the following elements to be crucial:

- The European Commission published its European Green Deal 11th of December 2019 with the ambition to be climate neutral as a continent and to achieve the goals of the Paris Climate Agreement signed in 2015. Pricing mechanisms can help in realizing those goals, as admitted in the Green Deal. We propose a fair meat price, a sustainability charge on meat, including True Cost Accounting for GHG-emissions and biodiversity loss to be part of the Green Deal. This is a price mechanism needed in the EU to meet the goals of the Paris Climate Agreement and the zero-deforestation goals of the EU. The EU can consider to oblige Member States to introduce minimum levels of 'sustainability charges' on meat, including CO<sub>2</sub>-eq prices, like the EU obliges its Member States to have minimum tariffs on motor fuels, heating and electricity<sup>16</sup> and harmonized EU aviation minimum taxes perhaps in the future. The introduction of EU-wide 'sustainability charges on meat' will lead to lower CO<sub>2</sub>-emissions of 119 Mton per year, more than total CO<sub>2</sub> emissions of four EU members combined: Denmark, Ireland, Estonia and Slovakia, equivalent of 3% of EU CO<sub>2</sub> emissions<sup>17</sup>. The EU Commission also can consider, as a start, to oblige EU Member States to move food products with high CO<sub>2</sub>-footprints like meat and dairy from low VAT tariffs to high VAT tariffs.
- Most of us like to eat meat. But we cannot deny that excessive meat consumption is a threat to the planet (climate change, biodiversity), our health and health care budgets. We propose that the EU mandate a minimum tax on meat consumption of 10 euro cent per 100 gram of meat, starting between 2023 and 2025, after more than 3 EU Member States introduced such fair meat price taxes for domestic and imported meat products. Together with EU minimum taxes on meat, carbon border tax adjustment mechanisms for imported meat products have to be introduced, to make sure cheap imported meat from countries without any environmental tax is taxed in the EU.
- EU countries introducing fair meat prices, including environmental costs, can consider **differentiated tariffs for beef/lamb, chicken and pork**/other meat products (with 10 eurocent per 100 gram as a minimum, as was proposed above for the minimum tax). For chicken, the tariff including full environmental costs will be 17 euro per 100 g, for beef/lamb it will be 47 euro cent per 100 g,

<sup>&</sup>lt;sup>16</sup> EU directive minimum tariffs for motor fuels, heating and electricity: https://ec.europa.eu/transport/modes/road/road\_charging/fuel\_taxation\_en

<sup>&</sup>lt;sup>17</sup> source of CO2 emission per country: https://edgar.jrc.ec.europa.eu/overview.php?v=booklet2018

and for pork/other meat products it will be 36 euro cent per 100 g (proposed for 2030; in the years before tariffs may go up every year a little bit towards these tariffs proposed for 2030. These tariffs are based on calculated environmental costs, including greenhouse gas (GHG) emissions, other air pollution and land use / biodiversity loss, based on calculations of Consultancy CE Delft in 2019. EU Member States will be made responsible for enacting the tax. The tax could be an excise tax, similar to the excise taxes on alcohol, tobacco (health motivated) or excise taxes on motor fuels, heating and electricity (climate motivated). This system would be similar to the set-up of excise taxes on gasoline, heating and electricity.

- The TAPP Coalition suggests the EU Commission promotes EU Member states to use 'fair meat price' tax revenues for financial support of farmers to reduce environmental impacts, and for reducing VAT taxes on healthy food with a low climate footprint: vegetables, fruits, plant based proteins, and subsidies for public procurement programmes in schools, governments, hospitals for healthy food with a low climate footprint. Compensation payments to low income groups also have to be incorporated. The European Green Deal proposed a Just Transition Funds. Will this Fund be used also used for low income households to compensate them for increased, 'fair' food prices?
- We propose the EU makes a framework for future true pricing of food in its Member States, including all environmental and health costs (polluter pays principle) for consumers, including compensations for low income households for a just and inclusive way of pricing food. Standardised ways of calculating environmental and social cost (True Price Accounting) is crucial for progress. In the Netherlands, Wageningen University and True Price are working towards standards, funded by the Dutch Ministry of Agriculture. The EU can consider using this method as its standard. A new EU 'true food price' label (legally protected like the Organic Food Label) could be made based on standards, with food prices including environmental/climate neutrality and social cost, like fair living wages for farmers.
- As the planet's second largest economic power, the EU could take the lead in global CO<sub>2</sub>-eq. reduction programmes for the meat- and dairy sectors and for CO<sub>2</sub>-pricing mechanisms. See annex 1 for examples how the EU can lead.

## Farm to Fork Strategy

The Farm to Fork Strategy has the ambition to contribute to Europe's climate change agenda, protect the environment and preserve biodiversity. It will ensure farmers' and fishers' position in the value chain. It will also encourage sustainable food consumption and promote affordable and healthy food for all, with less air, water and soil pollution, less loss of biodiversity, climate change and resource depletion. Obesity is also a growing concern, with more than half the EU's adult population now overweight, which in turn contributes to a high prevalence of diet-related diseases and related health care costs.

- The EU Commission may consider an EU "Supermarket Directive" for the Reduction of food related greenhouse gas emissions. The agriculture and food sector are not, or only partly, included in the EU Emission Trading System (non-ETS sector). EU member states have to develop their own policies to reduce greenhouse gas emissions in this sector. However, guidance by the EU Commission is possible, by proposing a new EU Directive for retailers and catering companies selling food. Comparable to the ETS sector, those companies can be made responsible to reduce the greenhouse gas emissions of the food products sold by them, in the same way ETS sectors have to do this (annual decrease of 2,2% of CO<sub>2</sub>-eq. emissions from 2021-2030. Food sales are responsible for ca. 15-20% of all greenhouse gasses in the EU, depending on whether food related emissions outside the EU are included or not. The new EU directive for supermarkets will ensure the greenhouse gasses by food consumption in the EU are reduced by 20% in 10 years time (2,2% annual decrease). To realise this goal, supermarkets can choose four options:
  - 1) Gradually increase the market share of food products with a relative low climate footprint;
  - 2) Demand food industry and farmers to reduce the climate footprint of their products;
  - 3) Sell (more) climate neutral food products;
  - 4) Compensate the greenhouse gas emissions caused by selling food products (making food climate neutral, standardized and EU recognized and ngo approved compensation methods).

The EU Directive will be applicable for large retail supermarkets and other food retail shops and catering companies, but to limit administrative burden for small retail shops, the directive is excluded for them (e.g. for shops with an annual turnover lower than

20.000 euro; selling less than 64 euro's per day on average).

- The EU Farm to Fork Strategy must encourage EU member states to introduce **'true pricing systems'** of food including all costs for greenhouse gas emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O), starting with fiscal policies for meat and dairy at consumer level: the polluter pays principle at consumer level. Imported products have to be taxed in a similar way.
- The Farm to Fork strategy should include **true pricing policies on food**, **including meat**, **dairy**, **(sugar)**, to reduce the consumption of food with relative high negative impacts on health, climate and the environment.
- We need a European Food Taxonomy for healthy, sustainable food and unhealthy, less-sustainable food with bonus-malus measures, fiscal incentives and subsidies at consumer and producer level.

## EU CAP Reform Agriculture Subsidies

The TAPP Coalition proposes the EU Commission reduces subsidies for meat and dairy production, as this will lead to higher production and consumption levels of products with high CO<sub>2</sub>-footprints. Subsidies have to be shifted more towards plant based food, to increase both production and consumption. Cuts in EU subsidies after 2021 can be fully compensated by a new income support, fueled by fair prices for meat and dairy, using 30% of its revenues for farms.

# 5. Climate Summit COP26 Glasgow and Biodiversity Summit COP15 China

Part of the "Fair Food Tax' revenues (meat, dairy) can be used for funding the UN Green Climate Fund for mitigation and adaptation and funds for zero-deforestation and biodiversity. This would be fair, as high meat and dairy consumption levels in the EU contributed to high greenhouse gas emissions and deforestation to make room for soy production for animal food. In addition, rich UN countries, including EU Member States, promised to contribute to this global Green Climate Fund for poor countries, suffering from the effects of climate change, caused by 80 percent by rich (G20) countries). Only a fraction of the promised donations are committed to and paid for.

If all EU-28 Member States implemented fair meat prices (a sustainability charge on meat) as is proposed by CE Delft in their report 'A Sustainability charge on meat' (2020), these 28 EU countries would receive revenues from excise taxes on meat, based on True Price Accounting (external costs) of  $\leq$  32.2 billion per year.

The TAPP Coalition advises 12% of revenues be used for support for developing (and middle income) countries to double nature reserves/ forests, reduce greenhouse gasses, and adapt to climate change. This means  $\in$  4 billion per year is available for developing countries for supporting them in their climate and biodiversity policies. In this way, developing and middle income countries could be persuaded to agree with global commitments and agreements on climate change and biodiversity. If they do so, the chance will increase that the world will reduce climate change to maximum 1,5-2 Degrees Celsius temperature change. This in return will benefit European consumers and farmers, as a world with 3-4 Degrees Celsius temperature increase will be a disaster for all. Australian wildfires show what could happen if temperatures rise up to 40-50 Degrees.

During the last UN Climate Summit COP26 in Madrid, countries did not manage to make the progress hoped for. During the next UN Climate Summit in Glasgow at the end of 2020, it is important that the EU take the lead again and help other countries to stay on board. Implementing meat pricing policies, including CO<sub>2</sub>-eq pricing, will be seen as a step forward by many countries in the world, especially when revenues will be used by 12% for payments to developing and middle income countries.

## The EU as a global leader

The EU should continue to lead the international climate and biodiversity negotiations, further strengthening the international policy framework.

The COP26 Summit in Glasgow 2020 is an opportunity to work towards an agreement about a global framework for reduction of greenhouse gas emissions from the global meat and dairy sector (eg. 2% net reduction per year starting from 2022 in OECD countries and 1% in non-OECD countries). The way countries implement this goals is open, but it could be advised to implemented it by CO2 / environmental pricing of food (meat & dairy).

The EU-China Summit agreement in September 2020 in Germany is an excellent opportunity to discuss the importance of global CO2 pricing of meat and dairy and 1-2% net CO2 eq reduction of emissions per year from meat and dairy sectors. During the EU-China Summit, the EU also can discuss taxes on animal feed imports in both EU and China, to slow down global meat consumption and global deforestation/land use. If EU and China sign an Agreement, EU and China will lead progress for both Summits COP26 (Climate) and CBD (Biodiversity).

The Conference on Biological Diversity (CBD) in October 2020 in China and the IUCN conference in June 2020 in Marseille are excellent opportunities to promote international agreements to increase the percentage for organic farming in 2030 or 2040 to substantial numbers, as organic farming proved to benefit biodiversity.

International agreements can be made to introduce very low or zero VAT taxes on organic food products, vegetables, fruits, nuts and plant based protein products, to boost consumption, followed by production increases. The EU could formulate a goal for 30% organic agriculture in 2030 (and 50% in 2050), since this way of food production has been proven to have lowest external costs and benefit nearly all SDG goals, according to FAO<sup>18</sup>.

<sup>&</sup>lt;sup>18</sup> https://www.eosta.com/en/news/sustainable-development-goals-and-the-link-to-organic

# 6. Background

The 512 million EU citizens account for 6.8 percent of the world's population, but are responsible for 16 percent of the world's total meat consumption. EU citizens have a food footprint of 1070 kg of CO<sub>2</sub> equivalent per year. Meat and dairy account for more than 75% of the climate impact from EU diets<sup>19</sup>. EU meat and dairy products contribute 6 % of the economic value of food but to 24 % of the environmental impacts (including  $CO_2$ -emissions)<sup>20</sup>. Europeans eat 69.3kg meat per capita in 2018 (source EU Commission)<sup>21</sup>. A sustainable, health diet, however, means 10 or 16 kg meat per capita (sources: Wageningen University, EAT Lancet healthy reference diet)<sup>22</sup>. UK meat dietary recommendation: 18 kg red/processed meat<sup>23</sup>. On average, an EU citizen consumed 22 kg per year of animal-based proteins and 16 kg per year of plant-based proteins (FAOSTAT, 2018).

World meat consumption is expected to rise 1,2%/year<sup>24</sup>. World meat production is expected to grow with 25% from 300 mln tonnes in 2015 to 376 in 2030 by FAO<sup>25</sup>. FAO expects global meat consumption to grow in 2050 compared to 2005 by over 50% (beef), 43% (pork) and 125% (chicken). Global annual meat consumption is growing by 1,2% (average 2014-2018)<sup>26</sup>, and this of course does not conform to the Paris Agreement. The FAO calculated that harmful environmental external costs (including greenhouse gasses) for global food consumption cost 2300 USD/year, more than double the global market value of food<sup>27</sup>.

A new study provides a more comprehensive accounting of the greenhouse gas emissions from EU diets. It shows that meat and dairy products are responsible for the lion's share of greenhouse emissions from the EU diet<sup>28</sup>. The average EU citizen has a food footprint of 1070 kg of CO<sub>2</sub> per year when emissions from production, land use change and international transportation are taken into account, according to a new study published in the journal Global Food Security. A 2014 report estimated that if EU citizens ate 50 percent less meat, dairy products and eggs, this would reduce agriculture greenhouse gas emissions by 25 to 40 percent.

EU Country	Percentage of population vegetarian	Year
Germany	11%	2017
Sweden	10%	2014
Poland	8%	2017
Italy	7,2%	2018
Netherlands	2-4,5%	2019

#### The number of vegetarian people in Europe is growing<sup>29</sup>, see table below:

European decision-makers are starting to recognize the fact that, according to scientific research, reducing meat and dairy products is the single biggest thing a person can do to reduce its environmental impact on the planet (in terms of land use, mass extinction of wildlife and greenhouse gas emissions). Global meat and dairy consumption requires global farmland in an area equivalent to the US, China, European Union and Australia combined. Loss of wild areas to agriculture is the leading cause of the current mass extinction of wildlife. Red and processed meat consumption also has negative health impacts, when meat consumption is high. Given that unhealthy diets are the number one risk factor for death and disease in the EU, and a key contributor to cardiovascular diseases, cancers, and diabetes, the reality is that we cannot afford for CAP (EU Agriculture subsidies) expenditure of EU food & health policies to not be aligned with health requirements. EU countries spend 9-10% of their GDP on healthcare, and 70-80% of this expenditure (700 billion euros annually) goes to treating chronic diseases. 10% of EU countries' health budgets are used for treating diabetes, and tackling obesity related diseases takes up 7% of health budgets. There is an urgent need for a holistic approach to achieve food system sustainability and for due attention to sustainable and healthy consumption. The 'Sustainable and healthy consumption' instrument could be used for food stamps, promotion measures for healthy diets, including less animal products, and increased intake of plant-based foods, setting up of short supply chain

http://www.fao.org/3/i9166e/i9166e\_Chapter6\_Meat.pdf http://www.fao.org/3/y4252e/y4252e07.htm 25

<sup>&</sup>lt;sup>19</sup> https://www.sciencedaily.com/releases/2018/10/181023110627.htm

<sup>21</sup> 

Weidema et al., 2008 https://ec.europa.eu/info/files/report-eu-agricultural-outlook-2018-30\_en <sup>22</sup> https://www.wur.nl/en/activity/Mansholt-Lecture-2019.htm and Willett W, Rockstrom J, Loken B, et al. Food in the Anthropocene: the EAT- Lancet Commission on healthy diets from sustainable food systems. The Lancet. 2019.

<sup>&</sup>lt;sup>23</sup> https://ec.europa.eu/jrc/en/health-knowledge-gateway/promotion-prevention/nutrition/food-based-dietary-guidelines: for UK : 350 gram red or processed meat per week maximum equals 18 kg per capita per year

<sup>&</sup>lt;sup>26</sup> FAO Meat Market Review March 2019

 <sup>&</sup>lt;sup>21</sup> http://www.fao.org/fileadmin/templates/nr/sustainability\_pathways/docs/Natural\_Capital\_Impacts\_in\_Agriculture\_final.pdf
 <sup>22</sup> http://www.fao.org/fileadmin/templates/nr/sustainability\_pathways/docs/Natural\_Capital\_Impacts\_in\_Agriculture\_final.pdf
 <sup>23</sup> http://www.europeandatajournalism.eu/eng/News/Data-news/Europe-is-going-veg

mechanisms, recommended dietary guidelines, education in schools for better nutrition, awareness campaigns for healthy diets, urban farming, public procurement, reduction of food waste, and improved transparency and consumer awareness. The European Union has committed to lead on the Sustainable Development Goals, however major changes are needed for us to be able to deliver. It is clear: a new, healthier, fairer and more sustainable approach to food systems is needed. Business as usual is no longer an option.

A recent Intergovernmental Panel on Climate Change (IPCC) report on "Climate change and Land" stresses it will be impossible to keep global temperatures at safe levels unless there is a transformation in the way the world produces food and manages land. It is estimated that, in the EU, agriculture alone is responsible for approximately 11% of EU greenhouse gas emissions. The IPCC report estimates that globally, 25 – 30% of total greenhouse gas emissions are attributable to the food system." EU citizens now pay CO<sub>2</sub>- or energy taxes on fuels and electricity, but in 2020-2030 it is expected they will have to pay CO<sub>2</sub> taxes on food products too with high CO<sub>2</sub>-footprints. True pricing of meat including costs for CO<sub>2</sub> eq and environmental costs in all EU Member States will lead to an increase of costs for beef (47,7 eurocent/100 gram), pork (36,1 eurocent/100 gram) and chicken meat (17,3 eurocent/100 gram). This, in turn, will lead to a reduction of meat consumption, leading to a reduction of 119 Mton CO<sub>2</sub> equivalent emissions per years in 2030 . According to WHO health standards, in most EU member states meat consumption is too high, and leads to many diseases and costs. True pricing of food, paying for CO<sub>2</sub>- and other external environmental or health costs, can be a solution. In this way, the consumption of food with relative high negative impacts on health, climate or environment, can be reduced, while tax revenues from true pricing fiscal policies can be used to reduce VAT taxes on relative healthy and sustainable food products like vegetables, fruits, plant based food and organic food. We need a food taxonomy for healthy and sustainable food products, to be rewarded by (fiscal) subsidies for farmers and consumers and (fiscal) disadvantages for unhealthy, unsustainable food.

As meat and dairy consumption is growing worldwide, related greenhouse gas emissions and deforestation for animal food are also growing. It is expected that after 2050, the global carbon budget is used completely by greenhouse gasses relating to animal farming, if business as usual continues<sup>31</sup>. While the aviation sector at least tries to reduce emissions and is working towards climate neutral growth after 2020, the UN and its member states do not have coordinated plans for the meat and dairy industry to reduce their emissions. While CO<sub>2</sub> taxes on fossil fuels are introduced nearly everywhere in the world, CO<sub>2</sub> pricing or taxations for meat or dairy is completely absent. According to the UN's IPCC, agriculture, forestry and other land use accounts for 24% of greenhouse gases. The role of animal farming ranges from 6-32%: the difference, according to the Meat Atlas, "depends on the basis of measurement". Should it just be livestock, or should it include a range of other factors like deforestation? This has generated an energetic discussion around extensive versus intensive farming, and regenerative farming. What about the giant companies that dominate the sector? A 2017 landmark study found that the top three meat firms - JBS, Cargill and Tyson - emitted more greenhouse gases in 2016 than all of France. The UN Food and Agricultural Organisation has a huge collection of data, and has also published reports like the groundbreaking Livestock's Long Shadow. The Meat Atlas. Research institutes are Sustain; The Institute for Agriculture and Trade Policy; Brighter Green; Sustainable Food Trust; IPES-food. Several meat pricing reports have been published, e.g. Health tax on meat, by Marco Springmann, Oxford University (2018), a proposal for 140 countries, including 22 EU countries<sup>32</sup>: Austria, Belgium and Luxembourg, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Netherlands, Portugal, Slovakia, Slovenia, Spain, Sweden, UK, Bulgaria, Romania and the Baltic States. For the Netherlands, a levy of 115% on processed meat and 27% on red meat would be necessary for an optimal health effect. This leads to a 25% lower consumption of processed meat and to 1680 fewer deaths in the year 2020, and 376 million euros less costs for health care related to meat consumption (430 million USD). The levies ensure an annual tax revenue in the Netherlands of 1.09 billion euros (0.75 USD for processed meat). For other EU countries, similar results are found. In East European countries, per capita levels of meat consumption are lower, and so are potential health benefits when health taxes on meat are implied.

New integrated plans for healthy and sustainable diets are also proposed by FAO and WHO<sup>33</sup>. To implement these plans, true cost pricing methods are needed, pricing in health and environmental impacts, so people with shift away from animal to plant based proteins. Excessive consumption of food of animal origin contributes to chronic welfare diseases, but so does the excessive consumption of refined starch products, vegetable oils and sugar. People with a low income in particular consume a lot of the last three.

<sup>&</sup>lt;sup>30</sup> CE\_Delft\_190106\_Duurzaamheidsbijdrage\_Vlees\_Hoofdrapport\_Def-7.pdf

<sup>&</sup>lt;sup>31</sup> https://tappcoalition.eu/policy-proposals

<sup>&</sup>lt;sup>32</sup> https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0204139

<sup>33</sup> http://www.fao.org/3/ca6640en/ca6640en.pdf

# 7. Excise duty or VAT increase

Benefits of an excise duty on meat compared to increases in VAT tax tariffs on meat:

- 1. The price difference with organic and sustainable quality meat and 'conventional' meat becomes smaller
- 2. Tax revenues are higher, so higher revenues can be used to compensate farmers or consumers in return
- 3. The environmental costs can be calculated and charged on meat products, in the case of an excise duty on meat
- 4. Robust tax income for the national government
- 5. Large regulatory effect (to reduce the consumption of meat)
- 6. Less administrative burdens according to government officials
- 7. Public support: use revenues for tax reductions on vegetables & fruits, payments to farmers and the poorest

2. The revenues of the fair price meat tax are intended to lead to a fair, higher income for farmers for cost-increasing measures to protect the environment and for improved animal welfare. That is why the revenues of a meat tax can be used partly for a Fair Food Prices Fund (50% for sustainable agricultural subsidies; 50% for burden reduction for consumers, including VAT tax reductions or subsidies on fruit and vegetables). A VAT increase on meat is only a source of income for the treasury.

3. The fair price meat tax is based on the calculated environmental costs (true price), so that chicken meat is taxed less than beef and pork; this differentiation is not possible with a VAT increase on meat. This gives citizens more choice and the right incentive (the user or polluter pays, and meat products with higher negative impacts on climate change and public health are taxed more). If chicken meat is also taxed – though less then pork or beef – it is not expected that people would buy more chicken (which could be harmful in terms of animal welfare). This is shown in the CE Delft report (2020).

4. The tax revenue is much higher with an excise duty tax, compared with a VAT increase. It will be a stable source of income for taxation authorities, even if meat tax tariffs will increase, the annual tax revenue will stay more or less the same, as consumption will go down. In the long term, the proposal offers possibilities for skipping complex taxes that make little money for the taxation authorities, so there can be a net simplification of the tax system.

5. The regulatory effect (and therefore also the environmental effect) is greater with a fair price meat tax (around 15-40% price increase) than with a VAT increase on meat (maximum circa 12% price increase). Economists warned that a price increase of only 12% is insufficient to change the behavior of consumers when buying meat, because EU consumers only spend ca. 10-15% of their income on food. This means a VAT increase of 12% on meat will have no or only very marginal effects.

6. According to a Dutch government memorandum, there is less administrative burden with an excise tax on meat than with a VAT increase on meat. If an excise duty on meat is chosen (a tariff per kg meat), taxed at the level of slaughterhouses, butchers and meat importing companies, enforcement is easier, because it involves fewer actors than a VAT increase on meat, and because all meat is taxed at the level of slaughterhouses and meat importers, without the problem of composite food products such as a slice of salami on a pizza, for which an adjusted VAT rate or exemption should be set.

7. Public support for a meat tax will increase when calling meat taxes 'fair meat prices' and using revenues for reducing taxes on fruits and vegetables, for supporting (sustainable) farmers financially and compensating low income households.

# 8. Recommendations

Europeans ate 69.3kg meat per capita in 2018 (source EU Commission)<sup>34</sup>. A sustainable, healthy diet however, means 10 or 16 kg meat per capita (sources: Wageningen University, EAT Lancet healthy reference diet)<sup>35</sup>. The UK dietary recommendation for meat, for instance, is 18 kg red/processed meat<sup>36</sup>. To realise those levels of healthy diet recommendations, European Member States can consider pricing mechanisms comparable with CO<sub>2</sub>-pricing options for energy: taxing and subsidizing. Governments can give subsidies or apply reduced VAT taxes on food products with low CO<sub>2</sub>-footprints (like vegetables), and tax products with a high CO<sub>2</sub>-print (like meat and cheese). Also, subsidy payments can be considered to companies or people who can prove they sold or bought less meat or cheese compared to last year. CO<sub>2</sub>-reductions, biodiversity or health benefits can be substantial.

As meat and dairy consumption is growing worldwide by ca. 1,5 percent per year, related greenhouse gas emissions and deforestation for animal food are also growing. It is expected that after 2050, the global carbon budget is used completely by greenhouse gasses relating to animal farming, if business as usual will continue<sup>37</sup>. While the aviation sector, with rapid increases in GHG-emissions, at least tries to reduce emissions and is working towards climate neutral growth after 2020, EU or UN Member States do not have coordinated plans or goals for their meat and dairy industries to reduce their production and emissions. While CO<sub>2</sub> taxes on fossil fuels are introduced nearly everywhere in the world, CO<sub>2</sub>-eq pricing or taxations for meat or dairy is completely absent. OECD countries, with very high levels of meat consumption per capita, exceeding levels for health and sustainability, have to take the lead and reduce the intake. Now is the time to act, as a new EU Farm to Fork Strategy will be published in March 2020 and The EU Commission just published its ambitious EU Green Deal. The EU wants to take a leading role in the world to contribute to the success of the Climate Summit in Glasgow and the Biodiversity Summit in China later in 2020. Including CO<sub>2</sub> prices in European meat prices would definitively help both summits.

Politicians might be afraid to implement food pricing options, of being accused of taking away the food people like to eat. However, there are ways to implement 'fair food prices', including environmental and health costs, in a way that a majority of consumers will support. This has been proven in the Netherlands, where a majority of 63% of consumers supports a higher meat price of 40% in 2030, if revenues are used to reduce prices of healthy food (vegetables, fruits, nuts, plant based food) and low income households are fully compensated, so they still can afford to buy meat. Another important condition for public support is that at least 30% of revenue is used for additional payments to farmers, to support them shifting towards sustainable agricultural practices and higher animal welfare standards. VAT increases on meat are not recommended, compared to 'fair meat prices' including environmental costs (excise duty), unless they are combined and countries first start with increasing VAT taxes on meat.

A CE Delft report commissioned by TAPP Coalition, published 5th of February 2020, shows that if 28 EU Member States would implement a fair meat price, including costs for GHG-emissions, air pollution and biodiversity loss prices for chicken, pork and especially beef will have to be increased with 17-67 eurocent per 100 gram meat in 2030. Revenues will amount to 32 billion euro per year, to be used for compensating consumers, farmers and developing countries, for increased public support. Meat consumption will be reduced in 2030 by 30-67%, and this will lead to a reduction in CO<sub>2</sub>-eq. emissions of up to 120 million tons of CO<sub>2</sub> per year. This equals all CO<sub>2</sub> emissions from four EU Member States: Ireland, Denmark, Slovakia, and Estonia, and nearly 3% of all EU greenhouse gas emissions. The plan perfectly fits in Frans Timmermans new EU Green Deal. There are wider benefits of a sustainability charge. If EU meat consumption goes down and plant based protein consumption goes up, healthcare costs will go down too, as Europeans eat roughly 50% more meat than is recommended in dietary health guidelines. Billions of Euros every year can be saved in healthcare costs.

The TAPP Coalition recommends revenues to be used for farmers (31-46%), lower VAT tariffs and consumer subsidies on vegetables and fruits (22-36%), compensations for low-income households (19%) and support for developing countries to double nature reserves/forests, reduce greenhouse gasses, and adapt to climate change (12%). In this way, revenues can be given to EU farmers:  $\notin$  10-15 billion/year, and to consumers:  $\notin$  7-12 billion/year (fiscal) subsidies on vegetables & fruits; and  $\notin$  6 billion for low-income households.  $\notin$  4 billion is available for developing countries. If  $\notin$  15 billion/year would be granted to 2.5 million EU farmers, eg. to all specialized live stock farms, incomes would rise by  $\notin$  6000/year on average.

<sup>&</sup>lt;sup>34</sup> https://ec.europa.eu/info/files/report-eu-agricultural-outlook-2018-30\_en

<sup>&</sup>lt;sup>35</sup> https://www.wur.nl/en/activity/Mansholt-Lecture-2019.htm and Willett W, Rockstrom J, Loken B, et al. Food in the Anthropocene: the EAT- Lancet Commission on healthy diets from sustainable food systems. The Lancet. 2019.

<sup>&</sup>lt;sup>36</sup> https://ec.europa.eu/jrc/en/health-knowledge-gateway/promotion-prevention/nutrition/food-based-dietary-guidelines:

for UK : 350 gram red or processed meat per week maximum equals 18 kg per capita per year

<sup>&</sup>lt;sup>37</sup> https://tappcoalition.eu/policy-proposals

The TAPP Coalition recommends that EU Member States start pricing meat with a 'fair meat price' of 10 euro cent per 100 grams of meat. Later on, the minimum tariff could be increased and differentiated for beef, chicken and pork as proposed by CE Delft for 2025 and 2030 in its report 'A Sustainability Charge on Meat' (Feb 2020). To maintain a level playing field and prevent 'cross border shopping' of meat in countries without fair meat prices, the EU, supported by European MEPs, could mandate or facilitate a minimum tax on meat consumption and carbon border tax adjustment mechanisms for imported meat products, to make sure cheap imported meat from countries without any environmental tax or policy is taxed when entering the EU. The tariffs are based on calculated environmental costs, including greenhouse gas emissions (90 euro/ton CO<sub>2</sub> eq), air pollution and land use/biodiversity loss. EU Member States will be responsible for enacting 'fair meat price' excise taxes, similar to the excise taxes on alcohol, tobacco, fuels and aviation. For gasoline, heating and electricity, the EU has also mandated a minimum excise tax for its Member States and the EU tries to harmonise aviation taxes in different EU countries. European harmonised 'fair meat' taxes would reduce market disturbances.

New integrated plans for healthy and sustainable diets are also proposed by FAO and WHO <sup>38</sup>. Excessive consumption of food of animal origin contributes to chronic welfare diseases, as does the excessive consumption of refined starch products, vegetable oils and sugar. People with a low income in particular consume a lot of the last three.

#### Summarised below are our recommendations to the EU and/or its Member States:

- adopt a fair meat price, a sustainability charge on meat, including True Cost Accounting for GHG-emissions and biodiversity loss, leading to differentiated tariffs for chicken (low), pork and beef/veal (higher prices, excise tax);
- adopt an EU framework for Member States to guide their 'fair meat price' revenues to be fully used for compensations to farmers and consumers, to guarantee all involved stakeholders will benefit in a just way;
- an EU minimum tax on meat of 10 euro cent per 100 grams has to start between 2023 and 2025, together with
- a carbon border tax adjustment mechanism for imported meat products, similar to 'fair meat' min. tariff;
- an option could be to move away meat and dairy from low to high VAT tariffs, as a start to 'fair meat price' not an alternative;
- adopt an EU framework for true pricing food with standardised ways of calculating environmental & social cost;
- if ready, develop and expand a legally protected EU 'True Food Price' label for standardized included true costs, to include fair living wages for farmers, environmental and climate neutrality cost and social costs;
- Ten EU countries have already reduced VAT rates for vegetables and fruits<sup>39</sup>. Ten other EU countries, including Germany, Denmark and the Netherlands, can also reduce VAT rates on vegetables & fruits from 10% to 5%;
- All EU countries should subsidize vegetables and fruits with 20 percent, as was recommended by the WHO, for instance for meals at schools, universities, hospitals and other public services.

The EU as global leader

- The EU leads in global CO<sub>2</sub>-eq reduction framework for meat- and dairy sectors and for CO<sub>2</sub>-pricing mechanisms, eq. 2% net reduction per year starting from 2022 in OECD countries and 1% in non-OECD countries),
- The COP26 Summit in Glasgow 2020 is an opportunity to work towards such a global framework;
- The EU-China Summit agreement in September 2020 in Germany is an excellent opportunity to discuss the importance of global CO<sub>2</sub> pricing of meat and dairy and 1-2% net CO<sub>2</sub> eq reduction /year and soy import taxes.
- The Conference on Biological Biodiversity (CBD) in October 2020 in China (and IUCN Marseille) are opportunities to
  promote international agreements to increase the % for organic farming in 2030-2040 to substantial numbers (e.g. 30% of
  all agriculture land), since this way of food production proved to have lowest external environmental costs and benefits nearly
  all SDG goals, according to FAO<sup>40</sup>;
- According to WWF UK<sup>41</sup>, meat /dairy based diets can be linked to 60% of global biodiversity loss and ca. 20% of CO<sub>2</sub> emissions. The best EU and global policy option to address this huge driver of biodiversity loss and GHG emission, is true pricing of EU meat and dairy including costs for CO<sub>2</sub> eq. and biodiversity loss, leading to a reduction in meat consumption of 50% in 2030-2040, in line with recommendations of WHO and IPPC.

<sup>&</sup>lt;sup>38</sup> http://www.fao.org/3/ca6640en/ca6640en.pdf

<sup>&</sup>lt;sup>39</sup> https://epha.org/living-environments-mapping-food-environments-vat/

<sup>&</sup>lt;sup>40</sup> https://www.eosta.com/en/news/sustainable-development-goals-and-the-link-to-organic

<sup>&</sup>lt;sup>41</sup> https://www.ecowatch.com/biodiversity-meat-wwf-2493305671.html

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European Green Deal Proposal EU	Indicative	EU food policy action needed
Climate ambition	Timetable	(proposal TAPP Coalition)
Proposal on a European 'Climate Law' enshrining the 2050 climate neutrality objective.	March 2020	All dairy & meat sold in the EU could be asked to be subject to a climate neutrality objective as early as 2040. This can be realized by solar or wind energy production at farms, animal feed with lower CO <sub>2</sub> -eq-footprints, carbon sequestration in soils and CO <sub>2</sub> -compensation for the remaining CO <sub>2</sub> -footprint. CO <sub>2</sub> compensation to be calculated and paid by dairy/meat industries and import companies. EU Member States can start pricing meat & dairy in 2022-2025; revenues can be used for additional payments to farmers for CO <sub>2</sub> eq. reduction).
Comprehensive plan to increase the EU 2030 climate target to at least 50% and towards 55% in a responsible way.	Summer 2020	EU Dairy & Meat sector: at least 50% CO <sub>2</sub> eq. reduction in 2030 compared to 1990 and remaining CO <sub>2</sub> eq emissions neutralized by CO <sub>2</sub> compensation for climate neutrality.
Proposals for revisions of relevant legislative measures to deliver on the increased climate ambition, following the review of Emissions Trading System Directive; Effort Sharing Regulation; Land use, land use change and forestry Regulation; Energy Efficiency Directive; Renewable Energy Directive; Cars and vans.	June 2021	Increased climate ambition for dairy and meat sector for 2025 and 2030 (see above). Increased climate ambition for supermarkets/retail: EU directive to reduce food related CO <sub>2</sub> emissions (scope 2 and 3) with 2% per year, starting 2023. Adopt a land footprint indicator and reduction targets to ensure the overall European consumption of energy and natural resources, especially meat and bioenergy, do not exceed an equivalent in surface of available European land.
Proposal for a revision of the Energy Taxation Directive.	June 2021	Including Food Taxation (Meat/Dairy Fair Price Taxation Directive) similar to the Energy Taxation Directive.
Proposal for a carbon border adjustment mechanism for selected sectors.	2021	Proposal for carbon border adjustment tax for meat and dairy sectors in 2022 with the same tax or CO <sub>2</sub> -eq. tariffs compared to EU tax or CO <sub>2</sub> eq. tariffs for EU dairy and meat industries based on dairy/meat footprints.
Clean, affordable and secure energy		
Assessment of the final National Energy and Climate Plans	June 2020	Assessment of National Climate Plans including plans for $(CO_2/environmental)$ pricing of food, with EU recommendations and future obligations for EU member states to include such plans.
Industrial strategy for a clean and circular economy		
EU Industrial strategy	March 2020	Include a Meat and Dairy industry Strategy for circular food production, excluding non-circular, non-EU animal feed without closed loops for nitrogen and phosphorous within Europe = EU + Swiss, UK, Turkey Oekraine, White Russia, Western Russia). Non-circular animal feed could be subject to an import tax.
	March 2020	Including resource intense sectors such as meat- dairy-, egg industries.

# Annex 1: European Green Deal Roadmap Key actions on EU Food Pricing policy

Action Green Deal	Green Deal Indicative Timetable	EU food policy action needed (proposal TAPP Coalition)
Initiatives to stimulate lead markets for climate neutral and circular products in energy intensive industrial sectors	From 2020	Including resource intense sectors such as meat- dairy- and egg industries.
Propose legislative waste reforms	From 2020	Directives on reuse of agri/foodwaste, including manure and human waste (replacing fertilisers).
Greening the Common Agricultural Policy / 'Farm to Fork' Strategy		
Examination of the draft national strategic plans, with re- ference to the ambitions of the European Green Deal and the Farm to Fork Strategy	2020-2021	Assessment of National Plans including CO <sub>2</sub> /environmental pricing of food, with EU recommendations and future obligations for EU member states to include such plans.
'Farm to Fork' Strategy Measures, including legislative, to significantly reduce the use and risk of chemical pesticides, as well as the use of fertilizers and antibiotics.	Spring 2020 2021	30/30% for organic food and agriculture in 2030. Legislative measures to increase EU Member State agriculture surface with organic agriculture from 7,2% in 2017 to 30% in 2030, and increase EU organic food market shares in retail and catering from 4-5% in 2019 to 30% in 2030 (compare EU directive for 20% sustainable energy in 2020). Differentiated goals for EU Member states depending on actual situation. EU directive for 100% organic agriculture in 2025 in regions used by water companies for clean groundwater protection to protect waterbodies efficiently against pesticides and nitrogen pollution. It will reduce consumer costs for purifying water. Additional subsidies for the promotion of organic food. Promote ultra low or zero VAT taxes on organic food, vegetables, fruits, nuts and plant based protein products.
Preserving, protecting biodiversity		
EU Biodiversity Strategy for 2030 and Measures to support deforestation-free value chains.	March 2020	Zero- import strategy in 2025 for animal feed from South America or other non-European continents to also protect global biodiversity and prevent further deforestation in a world with a growing demand for meat and dairy. This will make animal protein products more expensive as European animal feed will become more expensive; a reduction of EU consumption of animal proteins will lead to a huge reduction of land use for animal feed in the world. This will benefit biodiversity and prevent deforestation. EU member state taxes on meat, dairy and eggs and taxes on EU animal feed imports may be used for at least 12% for payments agreed during the CBD (Climate Summit COP15 in China end of 2020), such as doubling the area of Protected Nature Reserves in the world, a Biodiversity Fund for Forest protection and Restoration of deforestated land and nature based solutions within the Green Climate Fund. Renegotiate ratified international trade agreements to eliminate trade of products that contribute or incentivise, directly or indirectly, to deforestation, degradation or conversion of natural ecosystems. Suspend the ratification and negotiation of Free Trade Agreements, for example Mercosur and CETA.

Action Green Deal	Green Deal Indicative Timetable	EU food policy action needed (proposal TAPP Coalition)
Measures to address the main drivers of biodiversity loss	From 2021	According to WWF UK <sup>42</sup> , meat /dairy based diets can be linked to 60% of global biodiversity loss and ca. 20% of CO <sub>2</sub> emissions. EU measures to address this driver of biodiversity loss are true pricing of EU meat and dairy products including costs for CO <sub>2</sub> eq. and biodiversity loss, leading to a reduction in meat consumption of 50% in 2040, in line with recommendations of WHO and IPPC.
Towards a zero-pollution ambition for a toxic free environment		
Chemicals strategy for sustainability	Summer 2020	See below:
Zero pollution action plan for water, air and soil Mainstreaming sustainability in all EU policies	2021	EU taxation of pesticides and fertilisers for reducing pollution to soil & water and carbon border adjustment tax of food imports, produced without taxes on pesticides and fertilisers.
Proposal for a Just Transition Mechanism, including a Just Transition Fund, and a Sustainable Europe Investment Plan	January 2020	Just Transition Mechanism includes Funds for reducing industrial animal farming with a transition fund for animal farms producing plantbased proteins or vegetables. Just Transition Funds are also used for low income households to compensate them for increased food prices relating to environmental taxation (eg. 100 euro's per year per person compensation; payments could be used to buy healthy & environmental sound foods).
Renewed sustainable finance strategy	Autumn 2020	Including desinvestment strategies and recommendations for high risk, investments in industrial animal farming.
Review of the Non-Financial Reporting Directive	2020	Including reporting investments in high risk industrial animal farming (according to FAIRR investor recommendations).
Initiatives to screen and benchmark green budgeting practices of the Member States and of the EU.	From 2020	Including green budgeting practices of Member States rela- ting 'true pricing' of food, fiscal taxation of food with nega- tive health or climate impacts, VAT reductions for healthy food with low CO <sub>2</sub> footprints.
Review of the relevant State aid guidelines, including the environment and energy State aid guidelines.	2021	Allow State aid for sustainable farming practices in line with increasing environmental costs for farmers, as supermarket / food industry prices for farmers go down and often don't include payments for environmental costs or costs for animal welfare and nature production.
Align all new Commission initiatives in line with the objectives of the Green Deal and promote innovation.	From 2020	EU CAP subsidies to farmers have to be in line with the Green Deal CO <sub>2</sub> reduction goals, so a reduction is needed for subsidies for beef and dairy.
Integration of the Sustainable Development Goals .	From 2020	EU goal for 30% organic agriculture in 2030 (and 50% in 2050), since this way of food production includes all SDG goals <sup>43</sup>

https://www.ecowatch.com/biodiversity-meat-wwf-2493305671.html
 https://www.eosta.com/en/news/sustainable-development-goals-and-the-link-to-organic

Action Green Deal	Green Deal Indicative Timetable	EU food policy action needed (proposal TAPP Coalition)
The EU as a global leader		
EU to continue to lead the international climate and biodiversity negotiations, further strengthening the international policy framework	From 2019	Include CO2 /environmental pricing of food (meat & dairy) and start negotiations for a Glasgow COP26 agreement about a global framework for reduction of greenhouse gas emissions from the global meat and dairy sector (2% net reduction per year starting from 2022 in OECD countries and 1% in non-OECD countries).
		Include CO2 pricing of meat and dairy and 1-2% net CO2 eq reduction of emissions per year from those sectors, within EU-China Summit agreement in September 2020 in Germany. Try to include taxes on animal feed imports in both EU and China, to slow down meat consumption and global deforestation/land use.
		Include 30% organic farming in 2030 or 2040 in China Conference on Biological Biodiversity in October 2020 and the IUCN conference in June 2020 in Marseille. Promote ultra low or zero VAT taxes on organic food products, vegetables, fruits, nuts and plant based protein products.
Strengthen the EU's Green Deal Diplomacy in cooperation with Member States	From 2020	Include CO <sub>2</sub> /environmental pricing of food (meat & dairy).
Bilateral efforts to induce partners to act and to ensure comparability of action and policies	From 2020	Include CO <sub>2</sub> $/$ environmental pricing of food (meat & dairy).
Working together – a European Climate Pact		
Launch of the European Climate Pact	March 2020	Include CO <sub>2</sub> / environmental pricing of food (meat & dairy).
Proposal for an 8th Environmental Action Programme	2020	Include CO <sub>2</sub> / environmental pricing of food (meat & dairy).

#### Proposal for the EU Green Deal for a VAT reform for agri-food products based on health and sustainability criteria

Product/service; VAT rate	Super low tariff 5%	Low tariff 10%	Standard 21%
Healthy and/or environmentally friendly food products (which we eat too little according to dietary guidelines or low CO <sub>2</sub> / environmental emissions per kg).	Vegetables, fruit, potatoes, nuts, mushrooms, frozen vegetables, meat substitutes, water, tea, olive and sunflower oil, whole-grain products, brown rice. In the future: certified "true priced" foods including all environmental and social costs, including climate neutral and living wage / fair farmer price.	All remaining food not in 5 of 22% tariff. All animal food and non-foods from recognised sustainable food labels like organic, Fair Trade, ASC, MSC, Utz.	
Less healthy/less environmentally friendly food with on average relatively high CO <sub>2</sub> /environmental emissions per kg.			Meat, dairy, ice, alcohol, flowers, soft drinks, chips, sweets, pizza, fried food

### Annex 2. Subsidies and reduced VAT tariffs on vegetables, fruits, plant based food

TAPP coalition proposes that EU countries adjust their VAT tariffs for reduced rates on vegetables and fruits. Ten European countries already have done this<sup>44</sup>. Ten other EU countries, including Germany, Austria, Denmark and the Netherlands, can do so and reduce their VAT rate on vegetables and fruits from 10% (on average) now to 5% in the future (see our proposal in the table below). We also propose to include all plant based meat and dairy alternatives in the reduced VAT tariffs. All countries can, in addition, subsidize vegetables and fruits by 20 percent, as was recommended by the WHO, for instance for meals at schools, universities, hospitals and other public services.

Country	Actual VAT low tariffs Vegeta-bles & fruits (5% = EU minimum VAT tariff. Lower exemptions for historical reasons)	TAPP Coalition Propo-sal reduced VAT tariffs on vegetables fruits, plantbased food <sup>45</sup>	Proposed subsidy for vegetables and fruits in public services in % of price reduction conform WHO recommendations <sup>46</sup>
Cyprus	5%	5%	20%
Ireland	0%	0%	20%
Italy	4%	4%	20%
Latvia	3%	3%	20%
Malta	0%	0%	20%
Poland	5%	5%	20%
Spain	4%	4%	20%
Switzerland	2,5%	2,5%	20%
United Kingdom	0%	0%	20%
Belgium	6%	6%	20%
Bulgaria	9%	5%	20%
Czech Republic	10%	5%	20%
Denmark	25%	5%	20%
Germany	7%	5%	20%
Estonia	9%	5%	20%
Greece	6%	6%	20%
France	5,5-10%	5,5%	20%
Croatia	5-13%	5%	20%
Lithuania	5%	5%	20%
Hungary	5-18%	5%	20%
Netherlands	9%	5%	20%
Austria	10/13%	5%	20%
Portugal	6/13%	6%	20%
Romania	5/9%	5%	20%
Slovenia	9,5%	5%	20%
Slovakia	10%	5%	20%
Finland	10/14%	5%	20%
Sweden	6/12%	6%	20%



44 https://epha.org/living-environments-mapping-food-environments-vat/

<sup>46</sup> https://www.who.int/dietphysicalactivity/publications/fiscal-policies-diet-prevention/en/

<sup>&</sup>lt;sup>45</sup> If the European Green Deal would allow lower EU minimum VAT rates, we would advise a 3% VAT tariff

### Annex 3: EU meat facts and solutions

#### FACTS

- Europeans eat 69.3kg meat per capita in 2018 (source EU Commission)<sup>47</sup>
- A sustainable, health diet means 10 or 16 kg meat per capita (sources: Wageningen University, EAT Lancet healthy reference diet)<sup>48</sup>.
- UK meat dietary recommendation: 18 kg red/processed meat<sup>49</sup>.
- The 512 million EU citizens account for 6.8 percent of the world's population, but are responsible for 16 percent of the world's total meat consumption. World meat consumption is expected to rise 1,2%/year<sup>50</sup>.
- World meat production is expected to grow by 25% from 300 mln tonnes in 2015 to 376 in 2030, according to the FAO<sup>51</sup>.
- EU citizens have a food footprint of 1070 kg of CO<sub>2</sub> equivalent per year. Meat and dairy account for more than 75% of the climate impact from EU diets<sup>52</sup>.
- EU Meat and dairy products contribute 6 % of the economic value of food but to 24 % of the environmental impacts (including CO<sub>2</sub>-emissions)<sup>53</sup>.
- Reducing meat and dairy consumption is advised by the UN to realise the Paris Climate Agreement<sup>54</sup>.
- 11% of the German population is vegetarian, compared with 10% of the Swedish, 8% of the Polish and 7,2% of Italians<sup>55</sup>.
- The FAO expects global meat consumption to grow in 2050 compared to 2005 by over 50% (beef), 43% (pork) and 125% (chicken). Global annual meat consumption is growing by 1,2% (average 2014-2018)<sup>55</sup>, and this does not conform to the Paris Agreement.
- The FAO has calculated that harmful environmental external costs (including greenhouse gasses) for global food consumption cost 2300 USD/year, more than double the global market value of food<sup>57</sup>.
- Shifting to a healthy diet saves a lot of precious fresh water, according to a JRC study published in Nature Sustainability.

#### SOLUTIONS

We need meat consumption reduction policies, implemented by governments, starting in countries where meat consumption per capita is exceeding dietary quidelines and harms our health. If European/OECD countries would increase the price of meat (like they did with CO2-taxes already), they can use revenues for purposes aimed at increase public support.

Revenues from efficient fair meat prices in the EU28 could total € 32 billion/year and can be used for: € 10-15 billion/year payments to EU farmers for sustainability income support, € 7-12 billion/year for subsidies/lower VAT on vegetables, fruits, plant-based food and healthy/organic food. Another € 6 billion could be used for compensations of low-income households to make meat affordable for all. € 4 billion can be used for developing countries to double nature reserves/forests, reduce greenhouse gasses, and adapt to climate change, important for Climate and Biodiversity Summits in 2020.

A fair meat price package would include all environmental costs like CO<sub>2</sub> equivalent emissions, air pollution and biodiversity loss. If CO<sub>2</sub> emissions would be priced 60 euro/ton CO<sub>2</sub>, EU meat prices would have to increase by 17 eurocent per 100 gram chicken, 36 eurocent per 100 gram pork and 47 eurocent per 100 gram beef in 2030, starting with 10 eurocent per 100 gram in 2022 for all meat products. This proposal is supported by 63% of Dutch consumers, if revenues are used to reduce VAT on vegetables/fruits and compensate farmers and low-income households (source: tappcoalition.eu/news).

This proposal is accepted by Dutch government to be part of the proposals for a new fiscal system and a new government, and will be proposed to Parliament soon (input for the new elections spring 2021).

Fair meat prices in the EU, including environmental costs are 17-47 eurocent/100 gram meat, and will lead to less consumption: -30% chicken, -57% pork, -67% beef in 2030. Fair meat prices in the EU will reduce GHG emissions (CO<sub>2</sub> eq) with 120 Mton/year in 2030. This equals 3% of all EU GHG emissions or all emissions of Denmark, Ireland, Slovakia and Estonia. Revenues will total € 32.2 billion per year across 28 EU Member States by 2030.

<sup>&</sup>lt;sup>47</sup> https://ec.europa.eu/info/files/report-eu-agricultural-outlook-2018-30\_en 48 https://www.wur.nl/en/activity/Mansholt-Lecture-2019.htm and Willett W, Rockstrom J, Loken B, et al. Food in the Anthropocene: the EAT- Lancet Commission on healthy diets from sustainable

food systems. The Lancet. 2019.

https://ec.europa.eu/jrc/en/health-knowledge-gateway/promotion-prevention/nutrition/food-based-dietary-guidelines: for UK : 350 gram red or processed meat per week maximum equals

<sup>18</sup> kg per capita per year

http://www.fao.org/3/i9166e/i9166e\_Chapter6\_Meat.pdf
 http://www.fao.org/3/y4252e/y4252e07.htm
 https://www.sciencedaily.com/releases/2018/10/181023110627.htm 52

Weidema et al., 2008

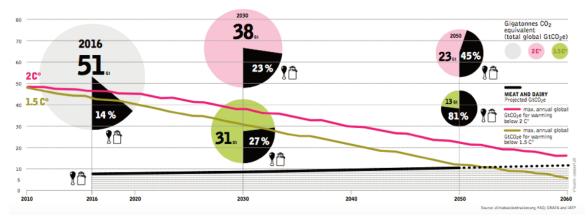
https://www.ipcc.ch/srccl/ https://www.europeandatajournalism.eu/eng/News/Data-news/Europe-is-going-veg

FAO Meat Market Review March 2019 http://www.fao.org/fileadmin/templates/nr/sustainability\_pathways/docs/Natural\_Capital\_Impacts\_in\_Agriculture\_final.pdf

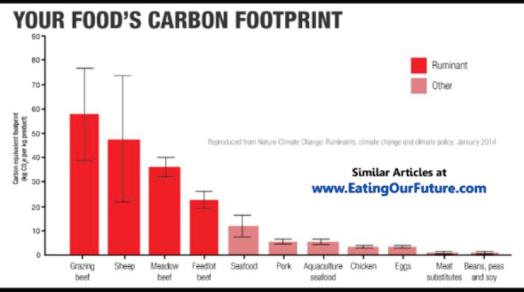
#### Annex 4: Infographics on meat, CO<sub>2</sub> eq. emissions and CO<sub>2</sub> eq-pricing

#### BUSINESS AS USUAL (BAU) GROWTH OF MEAT AND DAIRY PRODUCTION MAKES THE PARIS AGREEMENT IMPOSSIBLE AND CLIMATE CATASTROPHE INEVITABLE

ESTIMATED GHG EMISSIONS SCENARIOS FOR 2 C° AND 1.5 C° COMPARED TO THE BAU GROWTH OF MEAT AND DAIRY EMISSIONS



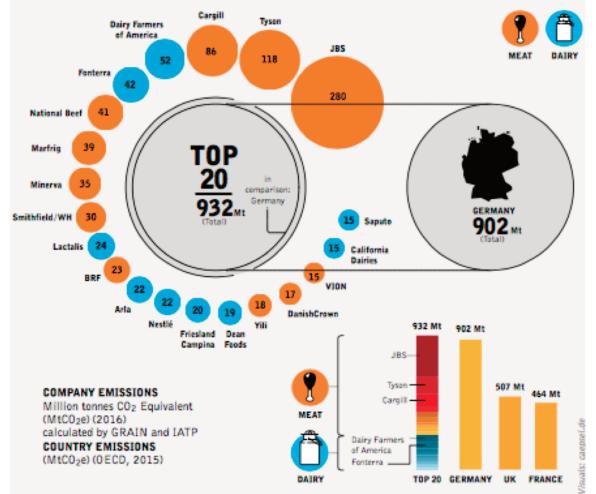
"The world is faced with the herculean task of trying to limit warming to 2 degrees C ... the point at which climate change is expected to get especially dangerous, leading to mega-droughts, mass extinctions & a sea-level rise that could wipe low-lying countries off the map...



"Globally, 14.5% of all greenhouse gas pollution can be attributed to livestock, according to the U.N. Food & Agriculture Organization... a huge chunk of the livestock industry's role - 65% - comes from raising beef & dairy cattle... About 70% of this planet's agricultural land is used for livestock production... In the Amazon, cattle production accounts for an estimated 50% to 80% of all deforestation....
 Beef is ... a hopelessly selfish, American indulgence; a middle finger to the planet...
 Would you stop eating beef to save the planet?..."

# BIG MEAT AND DAIRY'S SUPERSIZED CLIMATE FOOTPRINT

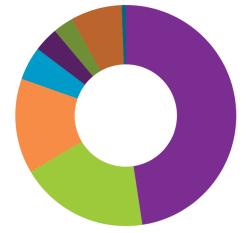
THE TOP 20 MEAT AND DAIRY CORPORATIONS EMIT MORE GREENHOUSE GASES (GHGs) THAN GERMANY



#### Greenhouse gas emissions from average food consumption

Share of greenhouse gas emissions generated for each type of food, as a percentage.

- Meat Dairy products Poultry, fish, seafood, eggs Vegetables Fruit Grain products
- 📕 Sugars, oils, fats 📕 Other



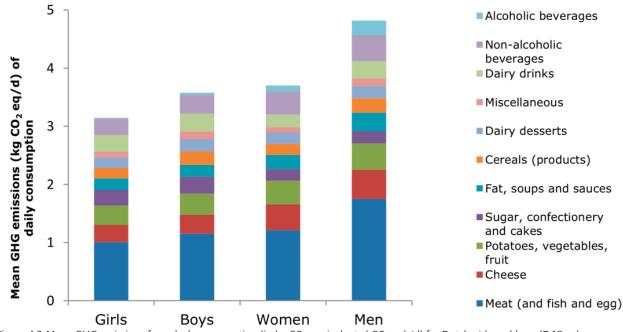
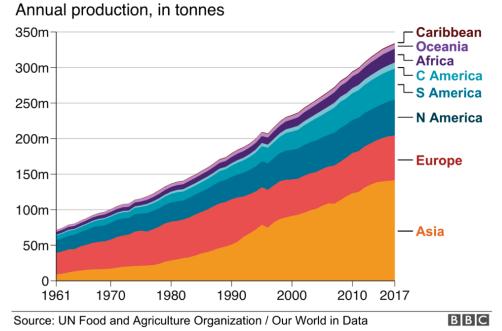


Figure 4.3 Mean GHG emissions for a day's concumption (in kg CO<sub>2</sub>-equivalents (CO<sub>2</sub> eq)/d) for Dutch girls and boys (7-18 yr.), women and men (19-60 yr.), and major contributions sources [30]. Source: https://www.rivm.nl/bibliotheek/rapporten/2016-0198.pdf

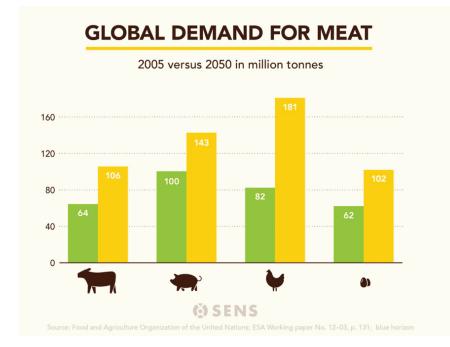
Meat production today is nearly five times higher than in the early 1960s - from 70 million tonnes to more than 330 million tonnes in 2017.

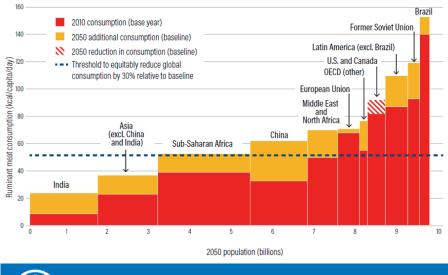


# Meat production by region

A big reason for this is that there are many more people to feed.

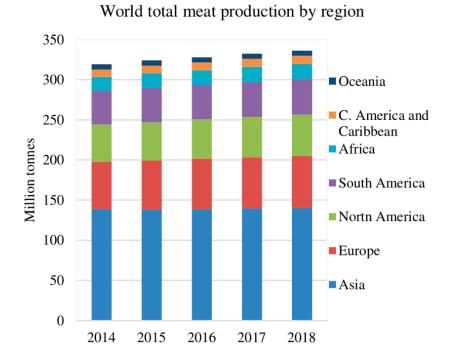
Over that period the world population more than doubled. In the early 1960s there were around three billion of us, and today there are more than 7.6 billion.







Overview of global meat market developments in 2018



**European meat production** from 2014-2018 was growing with ca. 5%. **Global meat output** in 2018 is estimated at 336.4 million tonnes, up 1.2 percent from 2017. Annual growth from 2014-2018 was 1,2 percent too. If this trend will continue till 2030, global meat production will rise with 95,7 million tonnes in 2040 to 432 million tonnes, an increase with 28 percent.

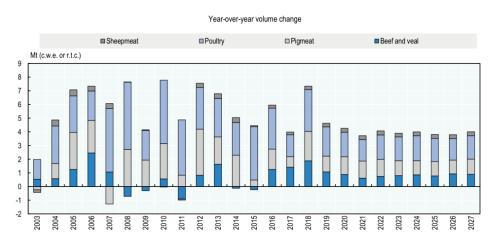


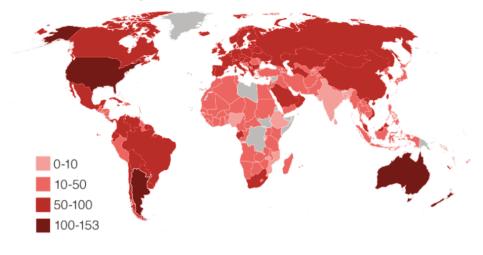
Figure 6.3. Annual growth of meat production by type

*Note*: c.w.e. is carcass weight equivalent, r.t.c. is ready to cook equivalent. *Source*: OECD/FAO (2018), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

StatLink ms http://dx.doi.org/10.1787/888933743328

## Who eats the most meat?

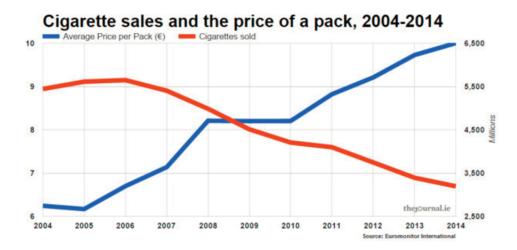
Meat consumption (kg per person per year)

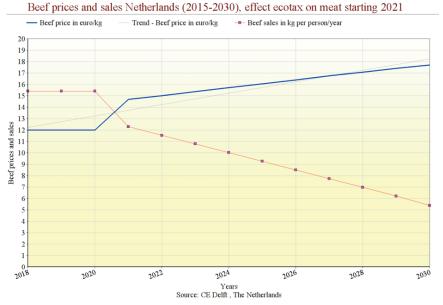


Source: UN Food and Agriculture Organization / Our World in Data

BBC

The average Ethiopian consumes just 7kg, Rwandans 8kg and Nigerians 9kg. This is 10 times less than the average European.





Effects in the Netherlands if a 'true price for meat including  $CO_2$  and environmental costs' will be introduced are similar to European taxes on tobacco products.



#### Annual meat consumption per capita in Europe

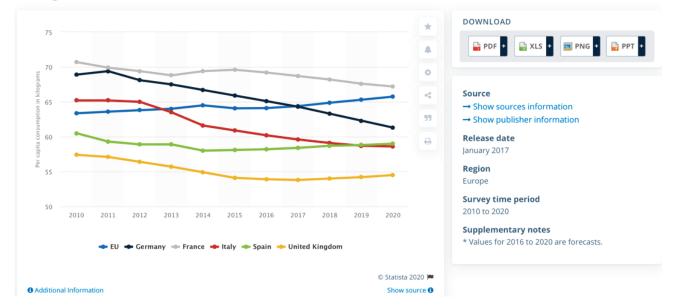
Data excludes fish and other seafood. These figures do not account for waste at the household/consumption level. Source UN Food and agriculture organisation (FAO), Our World in Data, 2013

# Projections by the European Commission Directorate General for Agriculture and Rural Development (EC, 2017) show that the per capita consumption of the vast majority of the examined animal-based product categories is expected to increase over the 2014-2020 period. This includes cream, cheese, butter, sheep and goat meat, poultry meat and eggs. Per capita consumption of yoqhurt, beef and veal meat and of

Overall EU meat consumption is expected to decline just a little bit towards 2030, going from 69.3 kg per capita in 2018 to 68.6 kg in 2030, according to the **European Union agricultural outlook for 2018-30 report** published on 6 December 2018 by the European Commission<sup>58</sup>. Meat consumption per capita in Europe was expected to grow from 2015 till 2020 (eg. countries like Poland will consume more meat), see blue line below:

pig meat is expected to remain more or less stable, while the consumption of fresh milk is expected to decrease.

<sup>&</sup>lt;sup>58</sup> https://ec.europa.eu/info/news/eu-agricultural-outlook-2018-2030-changing-consumer-choices-shaping-agricultural-markets-2018-dec-06\_en



#### Per capita meat consumption forecast in the big five European countries from 2010 to 2020\*

(in kilograms)

#### Impact of 17% fall in EU meat consumption by 2030

The European Commission has investigated the impact that switching between animal protein and plant protein might have on the prices and production (2019). Currently around 42% of protein consumed in the EU comes from plants, with the remaining 58% coming from animals (meat, fish, eggs and dairy). In the scenario modelled by the European Commission, diets gradually change over the next ten years to a 50/50 ratio. Consumers continue to consume the same number of calories, protein and fats. This would lead to a 17% drop in

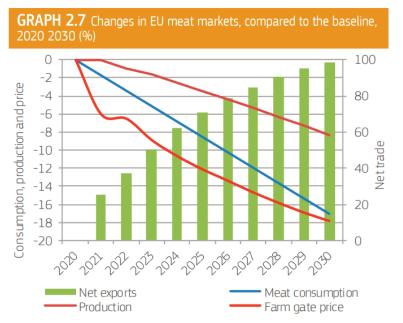
the baseline, 2030 (grams per capita)					
Plant Prote	ein Sources	Animal Prot	ein Sources		
Cereals	+44	Meat	-192		
Pulses and soya beans	+106	Dairy	-609		
Vegetables and nuts	+319	Fish and eggs	-103		
Total	+469	Total	-904		

TARLE 1 1 Changes in weekly ELL human consumption

Note: Meat products are aggregated in carcass weight and dairy products in milk equivalents (dairy decrease in product weight = 348 a/week.

All the changes mentioned below are compared to the baseline outlook from the European Commission.

The modelling suggests that average farmgate prices would decline by 18%, compared to the baseline forecast. The EU would then become more competitive on the global market, and exports of meat would almost double. Total meat production would decline by 8%. The modelling indicates milk production would also fall by 8%.



Source: DG Agriculture and Rural development, based on OECD-FAO Agricultural Outlook.

There would also be some environmental impacts. Under the modelled scenario, the EU's carbon footprint would reduce by 6% (22 million t CO<sub>2</sub> eq) in 2030 compared to the baseline. However, non-EU countries would also record a decline in greenhouse gas emissions of 33 million tonnes CO<sub>2</sub> eq. This is because the EU would be putting more meat and dairy on the global market, increasing its global market share. In the scenario, it is assumed that meat and dairy demand outside of the EU remains at the baseline forecast. This means production of meat and dairy would relocate from countries where GHG emissions per unit of production are higher, to the EU where they are lower. The EU has a more productive livestock system, which is less carbon intensive than some other countries.

The full report on the impacts is available on page 18 of the EU medium term outlook for Agriculture.







**True Animal Protein Price Coalition** 

www.tappcoalition.eu