A sustainable food system for the EU

8 November 2019 Brussels

Expert workshop report



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About SAPEA

SAPEA (Science Advice for Policy by European Academies) brings together outstanding expertise in engineering, humanities, medicine, natural and social sciences from over 100 academies, young academies and learned societies across Europe.

SAPEA is part of the European Commission's Scientific Advice Mechanism. Together with the Group of Chief Scientific Advisors, we provide independent scientific advice to European Commissioners to support their decision-making. We also work to strengthen connections between Europe's academies and Academy Networks, and to stimulate debate in Europe about the role of evidence in policymaking.

SAPEA is a consortium of five Academy Networks:

- Academia Europaea
- ALLEA: the European Federation of Academies of Sciences and Humanities
- EASAC: the European Academies Science Advisory Council
- Euro-CASE: the European Council of Academies of Applied Sciences, Technologies and Engineering
- FEAM: the Federation of European Academies of Medicine

SAPEA is funded by grant 737432 from the European Union's Horizon 2020 programme.

Context

By initiative of the European Commission's Group of Chief Scientific Advisors, the Scientific Advice Mechanism will be delivering scientific policy advice on an EU sustainable food system, to address the following question:

What are workable paths to deliver an inclusive, 'just' and timely transition to an EU sustainable food system, considering 'co-benefits' for health, the environment, and socio-economic aspects, including the socio-economic situation of the farming sector, and addressing territorial imbalances, the rural-urban divide, food waste as well as responsible consumer behaviour?

In particular, the Advisors identified a 'social science deficit' in existing reports on sustainable transitions in the food system, including how best to facilitate the expansion, uptake and implementation of policy recommendations to move towards a more socially just and environmentally sustainable food future at the pace that is required.

Based on the expertise of an international and interdisciplinary Working Group and available scientific evidence, SAPEA will deliver a state-of-the-art Evidence Review Report that proposes answers to these questions from a social sciences point of view. This final Report is expected by spring 2020 and will inform a Scientific Opinion by the Advisors, which will make policy recommendations to the European Commission.

A key milestone on the way to preparing the Report and associated evidence-based key messages is a one-day expert workshop, which took place on 8 November 2019 in Brussels. This workshop brought together SAPEA Working Group members and experts with applied and complementary knowledge and experience, as well as a member of the Group of Chief Scientific Advisors, Carina Keskitalo. Experts attended in a personal capacity and not as representatives of any institution.

The aim of this workshop was to discuss and review the key findings of the draft SAPEA Report, and to identify points to strengthen or prioritise with a view to informing the Advisors' Scientific Opinion. Workshop participants discussed the draft report's evidence in terms of strength, feasibility, practical applicability and policy implications regarding EU food systems becoming more sustainable. The draft SAPEA Report was revised in response to the feedback received at this workshop.

According to the rules of the meeting, this workshop report is prepared in an anonymous and non-attributed style.

Workshop participants

Fifteen invited experts participated in the workshop, with another two experts submitting written comments due to short-term unavailability.

Also in attendance were seven members of the SAPEA Working Group, one representative from the Group of Chief Scientific Advisors, one member of the SAPEA Board, four members of the Scientific Advice Mechanism Unit, and five SAPEA staff. Seven representatives from six different Directorates-General of the European Commission were present as observers.

There is a full list of participants in Appendix 1.

Session descriptions

The workshop consisted of six sessions corresponding to one or more chapters of the SAPEA draft Report, and a final session for feedback and questions from the Group of Chief Scientific Advisors (see agenda in Appendix 2). For each chapter-based session, one or two SAPEA Working Group members presented the key conclusions of the respective draft chapters. This was followed by invited responses by one or two discussants, and an open discussion with all invited experts. Recommendations for the SAPEA Working Group's consideration were identified and noted.

The scope of the six chapter-based sessions was as follows:

- Session 1: Introduction, definitions and critical challenges of sustainable food systems (corresponding to Report chapters 1 and 2)
 - Presenter and moderator: Peter Jackson, Hugo de Vries
 - Discussants: Tim Benton, Carolin Callenius
- Session 2: Understanding food systems and theoretical perspectives (corresponding to Report chapters 3 and 4)
 - Presenter and moderator: Marta Guadalupe Rivera-Ferre, Peter Jackson
 - Discussants: Frode Alfnes. Peter Oosterveer

- Session 3: Effectiveness of policy initiatives and interventions (corresponding to Report chapter 5)
 - Presenter and moderator: Jeroen Candel
 - Discussant: Carsten Daugbjerg
- Session 4: Agents and pace of change (corresponding to Report chapter 6)
 - Presenter and moderator: Anna Davies, Marta Guadalupe Rivera-Ferre
 - Discussants: Erik Mathijs, Rosalind Sharpe
- Session 5: Good practice examples and specific issues (corresponding to Report chapters 7 and 8)
 - Presenter and moderator: Lotte Holm, Piergiuseppe Morone
 - Discussants: Ana Moragues-Faus
- Session 6: Key messages and policy implications (corresponding to Report chapter 9)
 - Presenter and moderator: Peter Jackson
 - Open discussion with all invited experts
- Session 7: Feedback and questions from the Group of Chief Scientific Advisors
 - Presenter: Carina Keskitalo
 - Open discussion with all workshop participants

Introduction

The meeting was opened by Dr Yves Caristan (representing the SAPEA Board) and Professor Carina Keskitalo (member of the Group of Chief Scientific Advisors).

With the new European Commission's focus on sustainability, the crucial issue of food is being lifted up the political agenda. This Report signals a move towards cross-cutting and holistic advice for improving the sustainability of the food system. The Working Group was warmly thanked for its contribution to this important topic.

Professor Peter Jackson, the Chair of the SAPEA Working Group, provided some background on this project, emphasising that tackling the topic of food systems is very complex. The Working Group was asked to focus on the social sciences, and to review the best available evidence from the scientific literature, paying particular attention to recent and relevant policy initiatives at European level that may influence the food system.

Session 1: Introduction, definitions and critical challenges of sustainable food systems (Report chapters 1 & 2)

Presenter and moderator: Hugo de Vries, Peter Jackson

Key points of chapters 1 and 2

Chapter 1 tackles food sustainability as a global challenge which impacts Europe in different ways, with framings of food and food narratives the central topic. The problem is shaped differently depending on whether food is viewed as a commodity, as a human right, as sovereignty or as commons. The problem is approached as a complex system, and it is a major challenge to connect all parts, including scientific disciplines.

Chapter 2 presents an overview of the critical issues within the current food system which challenge its sustainability, such as obesity, environmental impacts including climate change, and globalisation. These critical issues send urgent messages and show how our current food system is unbalanced.

Discussants' comments

Living within planetary boundaries sustainably is the real challenge of the 21st century, and the Report lays out clearly that the food system is not fit for purpose. Framings of food are very important, with food as a commodity being the dominant perspective, but food is a commodity like no other: there are links to energy, transport and the natural environment, making its boundaries difficult to draw.

Forward-looking perspectives can provide insight, as the global situation is fragile, and the future is Turbulent, Uncertain, Novel and Ambiguous (TUNA). Social and economic conditions at national and international levels could change significantly and affect the food system, necessitating resilience to face these challenges. People-centred framings, such as food sovereignty and the right to food, could benefit from strengthening, including the state's duty and obligation to respect, protect and fulfil the right to food.

Costs relating to benefits and externalities in the food system are particularly relevant to a sustainable food system. For example, the FABLE Consortium report (2019)¹ looked at all costs of the food system and found that those of diabetes exceed those of agriculture. Also, acknowledgement of growing social inequality among nations and ethical dimensions is important.

Globalisation and power relations that shape our food system are key topics for consideration, and the scale of food system externalities makes them difficult to finance. Within this, there could be room to explore who is driving globalisation: the private sector is primarily responsible for externalities such as CO₂ emissions and water use.

When considering a sustainable food system, it is important to consider suitable metrics. The historic focus on availability of calories has incentivised intensity, driving down prices, so it is economically rational to throw crops away or feed to livestock, which drives climate change and competes for land use, thus creating a vicious circle: as we drive calories, we drive obesity and undermine nutritional value. Measures of sustainable intensity and product growth would benefit from inclusion of natural capital, moving towards total systemic productivity, equating people fed healthily per input unit, rather than biomass produced per input unit. Net zero carbon is also gaining traction as an indicator.

Considering future scenarios may also provide a valuable way of mapping pathways to a sustainable food system.

Finally, food system complexity should be considered carefully. The draft Report calls for the avoidance of fragmentation, but this could risk overwhelming or paralysing the system due to scale. Thus, fragmentation of individual objectives might be useful.

Comments from the open discussion

Going beyond food as a commodity brings discussions to how we identify and conceptualise the 'social' component of a socially just food system: through ethics, gender, culture? These topics could also be linked with outcomes.

Economics can also be easily forgotten within social science, despite its being useful to consider effects on resilience and the environment, suggesting that a greater emphasis on economic sciences would be relevant to the Report.

¹ FABLE (2019). Pathways to Sustainable Land-Use and Food Systems. 2019 Report of the FABLE Consortium. Paris: International Institute for Applied Systems Analysis (IIASA) and Sustainable Development Solutions Network (SDSN).

Recommendations for consideration for the SAPEA Report

- The Report could be more forward-looking, as the food system should be resilient facing an unpredictable future.
- Confirm the state's duty and framing of the right to food and food sovereignty.
- Further consideration of costs in relation to benefits and externalities, especially in the context of actors driving globalisation.
- Metrics for measuring sustainable food systems could include people fed per input unit or attaining net zero carbon.
- Fragmentation of objectives was suggested as a way of avoiding being overwhelmed by the complexity of the system.
- Conceptualisation of the 'social' component and its manifestation in the food system.
- Economic sciences could be further represented in the Report.

Session 2: Understanding food systems and theoretical perspectives (Report chapters 3 &

4)

Presenter and moderator: Marta Guadalupe Rivera-Ferre, Peter Jackson

Key points of chapters 3 and 4

In these chapters, the Working Group addresses the definition of sustainable food systems, as there is no consensus. The Working Group worked within limitations: for example, environmental outcomes were not focused on, due to extensive pre-existing literature such as the most recent IPCC report (2019).² Linear thinking is also addressed,

² IPCC (2019). IPCC Special Report on Climate Change and Land. Intergovernmental Panel on Climate Change. Available at https://www.ipcc.ch/site/assets/uploads/2019/08/SRCCL-leaflet.pdf

endorsing the need for a more circular system and trying to find key issues that could develop new approaches from a systems perspective, such as food waste. The chapters also consider what counts as evidence: social science contributes a range of evidence quite different from other areas of science, able to critically question the underlying premise of policies.

Discussants' comments

Focussing on a singular 'food system' could be considered a weakness when approached through sustainable economics. Multiple 'sustainable systems' might be more appropriate, so that the details can also be understood.

Contradictions within food systems, which can negate the ability to find win-win scenarios, were highlighted. For example, low prices help the poor to access food, yet encourage food waste; meat is subsidised for rural development, yet consumers are asked to eat less meat. A recent report from the UN's Food and Agriculture Organisation (2019)³ found a food waste percentage of 13.8% between farm and retail, which is less than assumed and good news, but removes an easy win.

Business and trade relate to many key issues, so the neglect of economic science within the Report was reiterated. How do elements within the Report affect each other from a business perspective? It would suggest that a structuralist approach through political economy, which includes economics and behavioural economics, would be useful. Furthermore, the inclusion of technology could also be beneficial, as food systems do not exist without technology.

Conceptualisation of the food system's borders, and defining the elements within, is a helpful process. Referring to the report of the UN High Level Panel of Experts on Food Security and Nutrition (2017)⁴ may be useful. This leads onto the topic of the transition to a circular system: there are many diverse movements towards sustainable food, which raises the question of whether talking of a single transition is appropriate. Uncertainty about the future challenges the integrity of any grand designs, so transition might need to be reflexive and experiential, moving away from an integrated and coherent approach and towards an alternative approach.

Finally, on the topic of governance, socio-ecological governance may provide a useful framework for this Report.

³ FAO. 2019. The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction. Rome. Available at http://www.fao.org/3/ca6030en/ca6030en.pdf

⁴ HLPE (2017). Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome. Available at http://www.fao.org/3/a-i7846e.pdf

Comments from the open discussion

There is a new agenda in research around power and politics in transition which provides useful information, such as literature on agro-food systems sustainability transitions.⁵ As well as theories of transition, theories of transformation could be relevant.

It could be powerful to specify with more clarity what a circular food system looks like, featuring better definitions of food systems, future and past, from the social sciences, systems and complexity research.

Recommendations for consideration for the SAPEA Report

- Suggestion that the 'food system' be considered as multiple systems, rather than a singular system.
- Consider that win-win scenarios are sometimes unviable, due to contradictions.
- Economic science, including behavioural economics in relation to business and trade, would provide useful perspectives.
- Technology is integral to food production, so it is suggested as an important topic.
- Further conceptualisation of the food system could be beneficial.
- Uncertainty about the future questions a singular transition to a circular system, suggesting numerous dynamic transitions instead.
- Socio-economic governance could be considered.
- Reinforce the specification of a circular food system and define food systems more clearly.
- Research around power and politics in transition might be relevant and informative, as well as theories of transformation.

⁵ El Bilali, H. (2018). Transition heuristic frameworks in research on agro-food sustainability transitions. Environment, Development and Sustainability, pp.1-36.

Session 3: Effectiveness of policy initiatives and interventions (Report chapter 5)

Presenter and moderator: Jeroen Candel

Key points of chapter 5

This chapter looks at the effectiveness of policies influencing food sustainability at different levels. Measuring effectiveness can be challenging. There are increasing levels of policy aimed at tackling food systems, not all labelled as 'food policy', including global influence and binding agreements. The EU has a really strong influence on some dimensions, such as agriculture, but not on others, such as consumers.

Discussants' comments

It can be difficult to produce a sustainability concept and apply effectiveness measures to agri-food policies and the EU food system, due to multiple impacts such as climate, nutrition, security, water or soil. One way to cover this would include discussing the reforms which might help create sustainability.

This leads to exploring the policy points that could be relevant, and conflicts found within, for example, how trade's impact on food security is contested. Human rights and sovereignty advocates are critical of liberalisation of trade to provide food security, while institutions like the Organisation for Economic Cooperation and Development, the International Monetary Fund and the World Bank are more positive about it. It could also be important to consider whether the World Trade Organisation is addressing sustainability issues.

Distinguishing between business-to-business and business-to-consumer governance is relevant, as it can be used as a tool for value chain control, marketing, or brand measurement. There needs to be a payoff for business alongside a threat that the state will intervene if issues remain unresolved.

Effectiveness of subsidies, especially the Common Agricultural Policy (CAP), are very relevant to this Report. Subsidies paid to farmers under Pillar 1 of the CAP⁶ have been linked to sustainability concerns, while economists argue that rural development subsidies in Pillar 2⁷ are more effectively targeted. Ecosystem service payments which reward farmers based on positive behaviour, as in the post-2020 CAP, were also proposed for consideration. Furthermore, Commission proposals which allow Member States greater flexibility to adjust CAP locally raise concerns over subsidies being seen merely as income, as well as casting doubt on how much 'common' will be left in the CAP.

Environmental sustainability policy in public health is a topic of note which would strengthen the Report, while literature on local food councils needs to be questioned regarding their ability to be transferred or scaled up to national level.

Comments from the open discussion

Further relevant perspectives on subsidies can be found in economics, where they are not necessarily viewed as beneficial. Evidence suggests that money leaks away and land prices increase, and raises questions over the cost of machinery and who benefits.

Also, in what manner is effectiveness framed: is it sustainability, or social effectiveness?

One proposition would be to strengthen the key messages found within the Report, reflecting the debates about building European food policy. Discussions around policy also raise the question of whether time-consuming, high-transactional-cost coordination of different sectors is necessary, or whether siloed policies are preferable.

Lastly, how can the role of the big actors shaping the food system and governance in chemical, technology, investment and digital industries be addressed?

Recommendations for consideration for the SAPEA Report

- Measurable sustainability outcomes can be difficult due to diverse impacts.
- Discussion of reforms or policy and their impact upon food systems could be useful.
- Distinguishing between business-to-business and business-to-consumer governance was proposed.

⁶ First pillar of the common agricultural policy (CAP): II – Direct payments to farmers. Available at http://www.europarl.europa.eu/factsheets/en/sheet/109/first-pillar-of-the-common-agricultural-policy-cap-ii-direct-payments-to-farmers

⁷ Second pillar of the CAP: rural development policy. Available at https://www.europarl.europa.eu/factsheets/en/sheet/110/second-pillar-of-the-cap-rural-development-policy

- Effectiveness of current and future subsidies such as the CAP could be further considered.
- Environmental sustainability within public health would benefit from being addressed.
- Question the scalability of local food councils.
- Subsidies can also be viewed from an economics perspective.
- Is effectiveness a social or sustainability concept?
- Consider the resource intensiveness of intersectoral policy vs siloed policy.
- Necessary to look at the industries ancillary to food production which shape the system and governance.

Session 4: Agents and pace of change (Report chapter 6)

Presenter and moderator: Anna Davies, Marta Guadalupe Rivera-Ferre

Key points of chapter 6

This chapter addresses agents of change in food systems, including how non-governmental agents intersect with systems and technology. Some cases have elements of engaging natural ecosystems, but it is not a major focus. NGOs, civil society and grassroots actors are considered alongside food producers, the role of trade, trade rules and their emphasis, enterprise and food initiatives. Scientists, knowledge producers and researchers are also included, alongside digital technology and reactions to data collection, noting that gathering information around food is needed. There is little data on impact and participants were invited to suggest evidence sources.

Discussants' comments

Systems framing is the dominant remit, with food serving as both a social and an ecological system. Humans determine what is identified as food, and our actions as human actors have repercussions that shape the system. However, these efforts can also be self-interested, capricious, or serendipitous. It was asked whether there was any literature on social sustainability and on the substantive outcomes of this sustainability.

Many governance actors are already covered, but the actors who certify industry are also very relevant, as they shape what is being measured, along with private strategic consultancies who align themselves with industry or government. This leads onto considering trade's influence as well.

Several theoretical frameworks are presented, including dominant and alternative approaches, with alternative being framed restrictively. A more critical assessment of 'dominant' and 'alternative' could prove beneficial. Local and global can also be challenging concepts, because food systems are geographically nuanced and the middle ground can be forgotten. There needs to be more balance in the pathways that actors pursue.

Power is an essential part of a system, with abuse of power being a problem. Agricultural economics literature has tested whether power is being abused by manufacturers and it is inconclusive. In some cases, farmers have power. Retailers see the balance of power differently as farmers or other actors, because they are an actor working on razor-thin margins. The power dynamics of big businesses is relevant: McDonaldisation is mentioned in the Report, but Amazonisation in the food system could also be addressed.

Product labelling under new European Commission regulations presents another topic, as guidelines will go beyond carbon, including Life-Cycle Analysis and more.

Comments from the open discussion

Broad consideration of consumer behaviour is important, to value all social groups' perspectives. Definitions of non-governmental actors and the framing of food democracy are equally important, with consideration for the positive and negative trade-offs between processes and outcomes. Idealising 'the local' can also lead to bias, with different standards being held to the national or global, yet, standards are missed at all levels.

Finally, industry and technology are major players within the food system and suggestions for points which the Report could address in these areas were requested from participants.

Recommendations for consideration for the SAPEA Report

- Look at the role of human actors in defining and shaping the food system, alongside social sustainability.
- Governance actors who certify industry are important.
- Trade as an actor could be considered further.

- Stronger delineation of 'dominant' and 'alternative' frameworks.
- Separating between global and local can overlook the middle ground.
- Power within food systems is a relevant factor.
- Product labelling, based on Life-Cycle Analysis, is worth noting.
- Consider increasing perspectives of all social groups.
- Carefully look at bias towards the local and the global.
- Industry and technology are vital players in the food system.

Session 5: Good practice examples and specific issues (Report chapters

7 & 8)

Presenter and moderator: Lotte Holm, Piergiuseppe Morone

Key points of chapters 7 and 8

Chapter 7 shows examples of good practice from different parts of Europe, featuring different actors. These are brief vignettes, often measuring participation or inclusion in the market. Measurements of sustainability outcomes are needed.

Key areas in Chapter 8 include the social and economic situation of the farming sector, going back to the social pillar of sustainability. Territorial and socio-economic imbalances in Europe are also covered, a diversity that needs to be acknowledged in order to make sound policy actions. Behaviour and technology that could facilitate reductions in food waste is also an important area of consideration.

Discussants' comments

Presentation of the concepts presented in the Report could benefit by placing the casestudies found in Chapter 7 in the areas of the Report to which they relate, rather than grouped together in one chapter.

The topics of place and scale are areas that could benefit from further critical thinking. Policy trade-offs raise issues worthy of consideration, e.g. sugar taxes only target socioeconomic groups who tend to eat these foods, so there is a need to note more explicitly who is affected by these initiatives. Political background to policy is also very relevant; for example, the UK is limited in local food policy implementation due to a reliance on imports.

Clearly defining terminology used in the Report on topics such as food justice would be helpful, alongside delineation between terms such as sustainability and food security, which can be easily conflated. The study of impact assessment is very relevant, especially when organisations often shy away from causality because it is difficult to measure.

Food system issues presented in Chapter 8 could be strengthened and clarified if their role within the development of sustainable food systems were stated more explicitly, then integrated into other areas of the Report, to contextualise them. Local food within the socio-economic system, and its impact upon farmers and farming, could also be beneficial.

Addressing territorial imbalances is important, also as an issue which can be celebrated, for example, different constructions of quality exist in different places, and it could be beneficial to refine these conceptual frames.

Consumer behaviour around responsible consumption and eating would bring additional perspectives to the Report. Temporal factors around policy timeframes could be considered, to highlight which ones are realistic.

The relationship between innovation and sustainability can be highlighted by noting several pre-existing initiatives which help identify domains for present and future competitive advantage.

Comments from the open discussion

Consideration of taxation and waste within Chapter 7 is positive. However, adopting a systems approach, it is worth noting them as possible leverage points, rather than being sustainable in isolation.

Clarification of the purpose and context of case studies is recommended, to explain how they were chosen, their purpose and whether they guide the discussion. Covering obesity within a case study also requires deliberation, as this topic is not a prominent consideration of the Report. Conversely, food processing is a welcome topic in this section. It might add clarity to apply the case studies to the component part of the food system on which it has an impact.

Pillar-to-pillar considerations across sectors are worth exploring. For example, the organic food market in Denmark is seeing the supply side motivate farmers to shift to organic farming, thus demand for organic is increased. The Danish ministry has delegated a lot of responsibility to organic associations, raising a governance approach, where the organic organisations coordinate the market.

Recommendations for consideration for the SAPEA Report

- Consider locating case studies throughout the Report, rather than in a single chapter.
- Topics of place and scale could be considered further.
- Trade-offs within policies and their political context.
- Greater specificity around terminology would be helpful.
- Cause and impact are often avoided, but relevant.
- Chapter 8 items could state their role in sustainable food systems more clearly.
- Territorial imbalances can also be considered positively.
- Consumer behaviour is notably relevant.
- What are realistic policy timeframes?
- Sustainability within innovation can be shown through pre-existing initiatives.
- Taxation and waste are topics that require systems thinking for sustainability.
- Placement, context, clarity and selection of case studies could benefit from greater interrogation.
- Pillar-to-pillar considerations would add wider perspectives.

Session 6: Key messages and policy implications (Report chapter 9)

Presenter: Peter Jackson

Key points of chapter 9

Chapter 9 brings together topics and discussions from previous sections, with key issues identified as follows:

- **Urgency:** Issues such as climate change, biodiversity loss and obesity cannot wait.
- Framing: Looking at food as a right, commodity, sovereignty etc. has an impact on the system, and whether to focus on agriculture, the CAP, or more broadly on food and food policy.
- Systems thinking: There appears to be consensus on interdisciplinarity when approaching the topic of food, but there is a suggestion that systems also risk paralysis which requires effective, tactical intervention.
- **Policy levers:** A mix of hard and soft measures is suggested, and education alone is not sufficient. Fiscal measures might be more effective, but policy levers are often hard to find in practice.

The Report is quite equivocal in its final comments, supporting the need for leadership and coordination but also encouraging a polycentric approach, with different actions at different scales necessary. Evidence of this features strongly in the practical examples.

Other global reports suggest consensus around enhancing synergies and anticipating trade-offs. Asymmetric power needs addressing; consumers are often blamed, ignoring the wider institutional and socio-technical situations.

Comments from the open discussion

The food system is often considered as linear or circular. However, another useful perspective is a chaotic system. Within the chaos, smaller systems and their interrelations can be studied to find interventions towards a goal, making the subject smaller and more manageable.

It is important to check whether the question asked in the scoping paper is answered, and how the evidence presented translates into paths and strategies, as well as to discuss uptake and adoption. One way to address this is to take items identified as actions, such as sustainable intensification, and to elaborate these as paths towards a more fair and just food system. However, there might be naivety in the idea of 'what works', as this may suggest a simplistic understanding of workable paths to justice and sustainability.

There is an opportunity to develop a conceptual vision of a sustainable food system through the definitions in the Report. Consideration should also be given to the role of science and scientists when some of the topics are very political. Visions are often value-based, which falls within the role of politicians, while the Report is restricted to peer-reviewed evidence. While future scenario discussions are tempting, such visionary thinking might lie outside the scope of this project.

Local to global, alongside the topics of industry, innovation, technology and markets, are of notable relevance for this Report.

Time limitations restrict the possibility of adding new topics to the Report, while a focus on identifying strong key messages is more realistic. In 2019, a report for the European Commission and the Food and Agriculture Organisation of the UN⁸ noted an acceleration of risks at a global level, especially in developing countries. Quick change is necessary, and win-win situations are unlikely to happen. Losers also have power and try to stop change, so both the big and the small in the system require attention.

Before closing the workshop, Carina Keskitalo gave a brief presentation from the perspective of the Group of Chief Scientific Advisors, and also discussed next steps. Representatives of the European Commission, who were invited as observers, were also given some time to express their views on the current Report, stating that it will be helpful in addressing some of the pressing issues that were set to the new Commission.

Recommendations for consideration for the SAPEA Report

- Food system can be considered chaotic, so it is helpful to identify systems and interrelations within it.
- Consider the capacity of the evidence to answer the scoping paper question, alongside uptake, adoption and the concept of 'what works'.
- A vision of a sustainable food system is bounded by political values, while the Report is based on science.

⁸ Dury, S., Bendjebbar, P., Hainzelin, E., Giordano, T. and Bricas, N., eds. (2019). Food Systems at risk: new trends and challenges. Rome, Montpellier, Brussels, FAO, CIRAD and European Commission. Available at http://agritrop.cirad.fr/593617/1/Food_systems_at_risk.pdf

- Industry, innovation, technology and markets would benefit from further work.
- Strengthen key messages, rather than adding new topics.

Session 7: Feedback and questions from the Advisors

Presenter: Carina Keskitalo

Feedback from the Group of Chief Scientific Advisors

The work on the Advisors' Scientific Opinion on Sustainable Food Systems has started. It is important to meet the March 2020 deadline because the European Commission's Green Deal requires certain elements within the first 100 days. The Advisors will hold a meeting on sustainable food systems on 12 December 2019, with several Directorates-General, to ensure that policy needs are met.

International trade and economics have several leverage points, and policymakers are very interested in how behaviour, particularly the influence of costs, can influence decision-making. The Advisors would welcome additional inputs regarding consumer action towards sustainable pathways, and regarding more examples of organisational forms at the national level, if such evidence is available and relevant.

The observers from the present policy Directorates-General were given the opportunity to ask questions or make comments.

Comments by observers and experts

How do we measure success and the effectiveness of interventions? Information is needed from the actors on the ground such as farmers and fishers making this transition.

What are the next steps for research and innovation? This is a critical time regarding what can be rolled out in the 2021-2022 proposals.

There is a need for good framing and boundaries, with a focus on what is a sustainable food system. This would refine what paths would work and their consequences. Metrics

are very important, while trade-offs of sustainability are extremely difficult. A transparent system is needed. Science gaps are important; we need to reflect what is missing in all areas. Why are some things taken up by research and not others?

What works today might not work in the future. There are potentially disruptive technologies that might make people react differently, but more data is needed to quantify.

The notion of food environments is also very important: what leads people to their decisions? To empower people to make decisions, do it in a way that prevents unsustainable decisions, so the average person makes sustainable choices by default. Identification of enablers is crucial.

Conclusion

The SAPEA Working Group will consider all of the feedback noted from the workshop when finalising the Report. It is not mandatory to include all or any of the comments put forward during the workshop, but the Working Group agreed that the vast majority of feedback given can be taken into account in the preparation of the final Report, given the available time and resources.

Appendix 1: Workshop participants

Invited experts (attended)

- Professor Tim Benton
- Mrs Carolin Callenius
- Professor Frode Alfnes
- Professor Peter Oosterveer
- Professor Carsten Daugbjerg
- Professor Erik Mathijs
- Dr Rosalind Sharpe
- Dr Ana Moragues-Faus
- Dr Hamid El Bilali
- Professor Ingrid Hoffmann
- Professor Tanya Schneider
- Professor Wojciech Goszczyński
- Professor Jessica Duncan
- Dr Nicolas Bricas

Invited experts (sent written comments)

- Professor Alessio Cavicchi
- Professor Alberto Garrido
- Charlotte Beckh

Working Group members

- Professor Peter Jackson
- Dr Marta Riviera-Ferre
- Professor Pierquiseppe Morone
- Professor Lotte Holm
- Dr Jeroen Candel
- Professor Anna Davies
- Dr Hugo de Vries

Scientific Advice Mechanism

- Professor Carina Keskitalo, GCSA
- Dr Gerjon Ikink, SAM Unit
- Dr Ingrid Zegers, SAM Unit
- Dr Piotr Kwiecinski, SAM Unit
- Dr Johannes Klumpers, SAM Unit

European Commission observers

- Anne Burrill, DG ENV
- Dr Adrian Leip, DG JRC
- Dr Dora Barreira Ramos, DG MARE
- Natalia Brzezina, DG AGRI
- Dr Karen Fabbri, DG RTD
- Anne-Laure Gassin, DG SANTE
- Iman Boot, DG AGRI

SAPEA

- Dr Céline Tschirhart
- Dr Yves Caristan (board member)
- Dr Nina Hobbhahn
- Louise Edwards
- Hannah Whittle

Scientific writer

Gavin Wren

Appendix 2: Programme

08:30-09:00	Arrivals and welcome coffee	
09:00-09:05	Welcome and introduction to SAPEA	Yves Caristan
09:05-09:10	Welcome and introduction to the SAM and GCSA	Carina Keskitalo
09:10-09:20	Setting the scene: an overview of the SAPEA Evidence Review Report "Sustainable Food Systems"	Peter Jackson
09:20-10:00 (40 minutes)	Introduction, definitions and critical challenges of sustainable food systems (Report chapters 1 & 2) First response Second response Discussion	Presenter and moderator: Peter Jackson, Hugo de Vries
10:00-10:45 (45 minutes)	Understanding food systems and theoretical perspectives (Report chapters 3 & 4) First response Second response Discussion	Presenter and moderator: Marta Guadalupe Rivera- Ferre, Peter Jackson
10:45-11:00	Coffee	
11:00-11:45 (45 minutes)	Effectiveness of policy initiatives and interventions (Report chapter 5) First response Second response Discussion	Presenter and moderator: Jeroen Candel
11:45-12:30	Agents and pace of change (Report chapter 6) First response Second response Discussion	Presenter and moderator: Anna Davies, Marta Guadalupe Rivera- Ferre
12:30-13:15	Lunch	
13:15-14:00 (45 minutes)	Good practice examples and specific issues (Report chapters 7 & 8) First response Second response Discussion	Presenter and moderator: Lotte Holm, Piergiuseppe Morone
14:00-15:00 (60 minutes)	Key messages and policy implications (Report chapter 9)	Peter Jackson
15:00-15:20	Coffee	
15:20-15:45 (25 minutes)	Feedback and questions from the Group of Chief Scientific Advisors	Carina Keskitalo
15:45-16:00	Closing remarks	Peter Jackson, Carina Keskitalo, Yves Caristan

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