Comments on FAO Consultation: “What are the barriers and opportunities for scientists and other knowledge holders to contribute to informing policy for more efficient, inclusive, resilient and sustainable agrifood systems?”

Dear Office of the Chief Scientist of FAO,

The Institute of Food Technologists (IFT) appreciates the opportunity to provide input to the consultation, “What are the barriers and opportunities for scientists and other knowledge holders to contribute to informing policy for more efficient, inclusive, resilient and sustainable agrifood systems?” As a global organization of approximately 12,000 science of food professionals, we believe science is critical for establishing evidence-based policies to ensure a global food system that is sustainable, safe, nutritious, and accessible to all. We are encouraged to see FAO’s desire to address barriers and increase opportunities for scientists to inform policy and provide the following feedback and perspectives.

Section 1: Analysis of the complexities and practical problems associated with science-policy interfaces.

While some scientists are aware of how policies are enacted and opportunities to contribute science to policy, there are still many barriers that often limit the ability of scientists to inform agrifood policies.

- Lack of awareness of the science-policy process – Some researchers, particularly those early in their career, often lack awareness of how to contribute to the science-policy process. Opportunities to train and help investigators engage in the interface of science and policy would be beneficial.
- Misalignment of priorities between the policy environment and other sectors, like academia– For scientists in academia, publications, and income generation (e.g., grants, start-ups, royalties) are typically rewarded and recognized over policy involvement. Thus, scientific experts may lack motivation for voluntary involvement in policy-making processes. Additionally, scientists who have received industry funding are often not considered eligible to sit on scientific expert committees, yet academic/industry collaborations are encouraged at most universities. It would be beneficial to find a
mechanism to enable scientists, even those with industry funding, to serve on expert committees.

- Lack of understanding or motivation to navigate political environments – Many scientists are not familiar with political environments. While Government agencies are often looking for scientific and technical insights, at times sometimes political priorities may overrule the scientific evidence. Providing greater training for scientists to understand how to have their science message heard in complex political environments would be helpful.

- Increased scrutiny on scientists publishing and participating in policy related research – Many scientists, particularly when researching areas that are controversial or might create a paradigm shift from the prevailing scientific perspective, often are hesitant to advance their message beyond a scientific publication. Several scientists have experienced personal and professional attacks from organizations and even other researchers in response to their research (Flegal, Progress in Cardiovascular Diseases, 2021; Prakash, GM Crops & Food, 2015). These are not attacks meant to debate the science, but personal attacks to discredit and harm reputation and person. There is a need to protect scientific discourse and ensure the science is the center of discussions and not attacks on character.

Section 2: Knowledge production for policy
Question 3 in this section asks if research and policy-making communities are united in their understanding of the challenges facing agrifood systems. While it seems that both research and policy-making communities understand the challenges, it is the priorities that are often not aligned. Sometimes there are higher priorities in the policy area than agrifood, and when scientists do not understand these competing priorities, it can be frustrating to see evidence-based policies not move forward or take a long time to develop. Alternatively, researchers can also minimize the policy impact of their research by making it too narrowly focused to be applicable. This requires the scientist to understand how to step back and assess their research for its policy impact.

Section 3: Knowledge translation for policy-making
As a scientific organization, IFT does engage in processes to build evidence into agrifood policy processes including government consultations, requests for information and requests for comments on proposed rule-making. We also engage our membership in these activities by making them aware of comment opportunities and requesting feedback from our membership to help inform any comments we develop. For some ongoing policy involvement, we also create committees made up of IFT members to help inform the development of feedback to policy-making organizations. For example, as Codex observers, we have IFT member volunteers engaging and providing scientific input into Codex committees. In 2021, we created the Food and Nutrition Security Steering Committee within IFT that is involved in identifying and
communicating food science and technology solutions to major challenges in food and nutrition security.

Within the US university setting, the extension model is an excellent example of a dedicated knowledge translation resource to get science into the hands of those who need it, such as farmers and producers, to improve their livelihoods and lifestyles. A similar mechanism to translate knowledge to policy may be useful for developing evidence-based policies.

**Section 4: Assessing evidence**

The credibility and relevance of evidence should be determined by the rigor of the scientific methods used to develop the evidence. Assessing science in this way is the best way to prevent biases and opinions from influencing the evidence. The authors, institutions or funding source of scientific research should not immediately discredit or lower the applicability of the research, rather the evidence should be evaluated based on rigorous scientific standards. There are many risk-of-bias tools that have been established for this very purpose. If there is bias in the design of the trials or in how the results were collected and reported – this could be objectively evaluated through a risk-of-bias assessment. Bias should not be assumed, but carefully evaluated through scientific evaluation.

There are several factors which can help ensure that evidence is assessed in a rigorous, transparent, and neutral manner.

- **Interdisciplinary group of researchers to evaluate the evidence** – A broad group of scientists from across the entirety of the food system should be included in assessments of evidence that will impact policy. This is the best way to ensure that the evidence is considered from every perspective of key players in the food system. This is particularly true for the middle segment of the food supply chain that is often not included in evidence evaluation. For example, when recommendations are made on food and nutrition, food scientists are typically not included in the evidence analysis, even though recommendations are being made about food. As a result, many recommendations are difficult to achieve because the evidence assessors do not consider the feasibility of the recommendations within the current food system.

- **Balanced perspectives of evidence reviewers** – It is also critical to ensure that there is a balance of scientific perspectives during evidence review and in all levels of policy making that involve science. Many times, the consideration of bias and conflict of interest in developing scientific review committees is based solely on funding sources. However, this does not consider other forms of bias. Scientists can have biases, particularly when their entire career and research program is built on advancing a certain research direction. It is not possible to eliminate bias and potential conflicts of interest, therefore, the best
alternative is to ensure that different perspectives are included and balanced. The exclusion of good scientists based solely on funding sources is a form of bias and does not lead to an inclusive and cooperative environment, thus it should be reconsidered. Accurate and understandable communications of evidence, particularly to policy makers, is critical to ensure evidence-based policies are pursued. Communication to the public is also critical as there are many sources of misinformation, particularly in the agrifood environment. It is also critical to be transparent in evidence assessments. Any assessment of scientific evidence for policy making should be published and include methodology of how the science was assessed. A report from a group of experts is insufficiently transparent because it is not clear which of the recommendations are based on scientific review and which are based on scientific opinion of the expert panel. The Dietary Guidelines for Americans follows a system such as this, where all the questions that will be evaluated are established in the beginning of the process. Systematic reviews are conducted for each question and the results of those reviews are published. Mechanisms such as this increase transparency and eliminate the potential for expert opinion to influence the outcomes of expert panels.

IFT believes quality science and objective scientific evaluation is critical to establishing evidence-based policies to transform the food system to ensure food and nutrition security for all. Science of food professionals play a critical role in generating this science and evaluating science for policy development and stand ready to serve in these capacities. Please contact Anna Rosales, Senior Director Government Affairs and Nutrition (arosales@ift.org) if IFT may be of further assistance.

Sincerely,

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Institute of Food Technologists