

Thematic Evaluation Series

Real-time evaluation of FAO's COVID-19 Response and Recovery Programme

Annex 4. Knowledge products and data services

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Abbreviations and acronyms

AMIS	Agricultural Market Information System
FAO	Food and Agriculture Organization of the United Nations
FAPDA	Food and Agriculture Policy Decision Analysis
GIEWS	Global Information and Early Warning System
KPDS	Knowledge products and data services
LNOB	Leave no one behind
OCC	FAO Office of Communications
PA	Priority Area
RTE	Real-time evaluation
SOFI	The State of Food Security and Nutrition in the World

Executive summary

1. This report presents the good practices and lessons learned identified by the real-time evaluation (RTE) of the Food and Agriculture Organization of the United Nations (FAO) COVID-19 related knowledge products and data services (KPDS). In order to identify the good practices and lessons learned, the RTE assessed the relevance, coherence, business continuity practices and of FAO's COVID-19 KPDS as well as how the KPDS ensured that the principle of "leave no one behind" (LNOB) was mainstreamed.
2. The RTE relied on several sources of information, including secondary data, Cybermetric studies, semi-structured interviews, surveys, and used a mixed-method approach. The evaluation did not include country visits.
3. Some good practices and lessons learned are presented below in parenthesis and identify possible users who may wish to consider them moving forward.
4. FAO developed over 500 COVID-19-related publications in 2020. The Organization also launched several websites and adapted and/or used pre-existing data services to inform the response to the COVID-19 crisis.
5. FAO's KPDS were found to be relevant and developed in anticipation of and/or in response to emerging needs for policy support and technical guidance from FAO personnel, Member States and partners. As a result of senior management setting a clear strategic goal and putting in place processes to attain it, the KPDS were aligned with efforts to prevent that the health crisis became a food crisis. FAO's response through KPDS was swiftly devised and these supported a series of key messages being promoted by FAO (*Good practice 1. FAO Management, Technical Teams*). Coordination of the KPDS by senior management as well as involvement in their dissemination contributed to prioritize and highlight the key messages.
6. COVID-19-related KPDS developed at the onset of the crisis (March-April 2020) had a global scope and targeted primarily government actors and the private sector. FAO's decentralized offices found global KPDS relevant to inform regional partners and to trigger additional tailored analysis. Adapting existing monitoring, early warning and information sharing systems was one of the good practices employed and proved to be an effective way to provide relevant information on the global crisis situation (*Good practice 2. FAO Management, Technical Teams, Decentralized Offices*). However, assessing country situations in the context of lockdowns and travel bans was found challenging. The capacity that the Organization has to collect and analyse data is an important determinant to how well it can respond to similar crises (*Lesson learned 1. FAO Management, Technical Teams*).
7. KPDS were found timely but decentralized offices reported room for streamlining the headquarters-coordinated review and clearance mechanism for regional COVID-19-related knowledge products (*Lesson learned 2. OCC*). Furthermore, timely and up to date knowledge products also require fluid processes and suitable formats and mediums (*Lesson learned 2. OCC*); with personnel having the appropriate skills to develop and disseminate knowledge products in crisis contexts (*Lesson learned 3. FAO Management, Human Resources Department, Technical Teams*).
8. External collaborations with United Nations (UN) partners and other organizations were leveraged to develop and disseminate KPDS. Pre-existing partnerships facilitated the timely development of knowledge products. In all cases, there is a need to account for the development processes and

clearance requirements from partners since this may add time before products are disseminated which, in a crisis context, may reduce their relevance (*Lesson learned 4. Technical Teams*).

9. The coordination of the KPDS development process in substantive terms contributed to ensure consistent key messages from offices/divisions. The development of common templates, communication resources and publishing standards helped to harmonize policy briefs (*Good practice 3. FAO Management, Technical Teams, Decentralized Offices, OCC*). The management of the response to the crisis fostered technical teams and personnel at headquarters and in the decentralized offices to work as "One FAO". "Vertical" and "horizontal" collaboration supported the development of KPDS that covered several themes in order to facilitate more coherent responses to the crisis (*Good practice 4. FAO Management, Technical Teams, Decentralized Offices*). However, the crisis situation made it difficult to devise how to synergize different types of knowledge products in order to create bundles that would more comprehensively target specific categories of end users (*Lesson learned 5. Technical Teams, OCC*). Furthermore, data sources, team composition and degree of collaboration influenced the level of effort required to develop knowledge products (*Lesson learned 6. Technical Teams*).
10. Dissemination of the KPDS was facilitated by the use of various media, making available pre-packaged promotional content and presentations, and by adapting content to target audiences (*Good practice 5. Technical Teams, Decentralized Offices, OCC*). However, the lack of familiarity with dissemination plans or guidelines for ensuring coordinated dissemination planning and implementation by technical staff contributing to the diffusion of KPDS limited the extent of the outreach efforts (*Lesson learned 7. Technical Teams, OCC*). A thorough and multi-faceted analysis for effective targeting of specific types of users or communities was found difficult to conduct in a crisis context (*Lesson learned 8. Technical Teams, OCC*).
11. FAO personnel found COVID-19-related KPDS useful to provide an assessment about the impact of the crisis and build a shared understanding about FAO's position and response. KPDS supported FAO personnel in leading or engaging discussions with different partners and stakeholders, including in support of high-level events and ministerial meetings.
12. External partners and users also considered FAO KPDS as valuable. Collaborating with external actors for the development of COVID-19-related knowledge products and data services was reported very effective to disseminate key messages and to support their uptake (*Good practice 6. FAO Management, Technical Teams, Decentralized Offices*). Leveraging global knowledge products and data services was also very useful to inform the development of additional analysis, developing and repurposing projects and providing more focused guidance contributing to better targeting specific sectors, regions or communities (*Good practice 7. Technical Teams, Decentralized Offices*). However, the absence of monitoring data on the use and contributions of KPDS limited FAO personnel's ability at headquarters and in the decentralized offices to inform future follow-up actions, including more targeted advocacy, increased dissemination and provision of technical assistance (*Lesson learned 9. OCC*).
13. FAO knowledge products related to COVID-19 supported and advocated for the rights of and the inclusive targeting of women, minorities and marginalized groups by consistently mainstreaming gender and LNOB principles. However, the degree to which gender topics were mainstreamed in the knowledge products rated slightly lower than LNOB. This can be explained, in part, by gender issues being considered, at times, as a sub-set of LNOB. Gender issues should be seen as often intersecting with LNOB concerns rather than being viewed as a sub-set. Furthermore, the degree of mainstreaming of gender principles was found higher for knowledge products conveying the key message to "*Prioritise vulnerable groups*" compared to other key messages. The lack of

guidelines for mainstreaming gender and LNOB in the development of KPDS has limited the application of consistent, comprehensive and systematic criteria across FAO's key messages (*Lesson learned 10. Technical Teams*).

14. FAO personnel adapted swiftly to online collaboration and work processes including by testing and adopting new technologies and accelerating the digitization of the Organization (*Good practice 8. FAO Management, Technical Teams, Decentralized Offices, OCC*). The transition to an online working mode was sometimes perceived as an "amazing cultural shift as FAO never supported teleworking in the past" to this extent. However, personnel also insisted on the need to sustain and continue supporting this change through skills development and business intelligence to ensure that the most appropriate IT tools keep being identified and adopted.

1. Introduction

1. At its 129th session, the Programme Committee of the Food and Agriculture Organization of the United Nations (FAO) requested the FAO Office of Evaluation (OED) to conduct a real-time evaluation (RTE) of FAO's COVID-19 Response and Recovery Programme. The RTE assesses the progress made with the implementation of the programme and provides timely feedback/early assessments to foster learning and accountability. It covers FAO's COVID-19 responses that have been grouped under the programme from the onset of the pandemic to date, irrespective of budget source or geographic location.
2. FAO's COVID-19 Response and Recovery Programme includes seven priority areas (PAs), namely: i) global humanitarian response plan (PA1); ii) data for decision making (PA2); iii) economic inclusion and social protection to reduce poverty (PA3); iv) trade and food safety standards (PA4); v) boosting smallholder resilience for recovery (PA5); vi) preventing the next zoonotic pandemic (PA6); and vii) food system transformation (PA7).
3. Informed by consultations with FAO personnel as well as by the results of the stocktaking study conducted to identify potential areas of focus, one component selected for a more in-depth assessment is the work of FAO in developing and disseminating knowledge products and data services related to COVID-19. Virtually all priority areas have contributed to this area of work.

1.1 Purpose, users, scope and questions of the assessment

1.1.1 Purpose

4. This assessment reviews FAO's knowledge products and data services (KPDS) developed in support to FAO's response to the COVID-19 crisis, including KPDS developed prior to the launch of the umbrella programme (i.e. from March 2020 onwards). It has the following intended purposes:
 - i. Identify lessons learned and good practices so as to:
 - inform the design of forthcoming data and related knowledge products and services; and
 - inform forthcoming dissemination strategies.
 - ii. Provide an account of the influence of selected knowledge products and data services in support of Member Countries and partners' response to COVID-19.

1.1.2 Users

5. This component of the RTE provides personnel and external partners working on KPDS for COVID-19 with lessons learned and good practices for improving the development and dissemination process of future KPDS. To facilitate interactions with key users this component has a dedicated core learning group (CLG). The purpose of the CLG was to increase the utility of the process and products of the RTE by:
 - i. serving as a forum for discussion and technical input as the exercise progresses;
 - ii. providing feedback on findings and emerging good practices and lessons learned; and
 - iii. advocating for adopting lessons learned, good practices and suggestions for improvement.

6. Members of the CLG included representatives of the priority areas/offices that have been more actively involved in the development and/or dissemination of COVID-19-related KPDS such as PA2, PA3, PA4, PA7 and the FAO Office of Communications (OCC).

1.1.3 Scope

7. The RTE covers KPDS developed at global level, and includes two main types of products and services:
 - i. **publications:** FAO developed over 500 COVID-19-related publications in 2020;¹ and
 - ii. **databases and websites:** several websites and databases were developed in response to the COVID-19 crisis, including, for example, the Novel Coronavirus (COVID-19) Portal² and the Crops calendar³; in addition, several databases were adapted and/or used to inform the response (e.g. the Agricultural Market Information System [AMIS]⁴, the the Food and Agriculture Policy Decision Analysis [FAPDA]⁵) and have thus been included in the review.
8. Within this typology, the review focuses on a sample of KPDS serving two primary objectives: i) to prevent the health crisis from becoming a food crisis; and ii) to build back better. These objectives were pursued through the promotion of one (or more) “key messages” and related KPDS that the RTE shortlisted on the basis of the discussions held with representatives of each priority area as well as with other relevant units at headquarters (such as OCC). Appendix 2 details the list of KPDS included in the assessment classified by publishing date, priority area and key message to which it contributes.

1.1.4 Evaluation questions

9. This review aimed to address the following evaluation questions (EQ):
 - i. **RELEVANCE:** How did FAO ensure that its COVID-19 knowledge products and data services were relevant?
 - ii. **COHERENCE:** How did FAO's knowledge products and data services complement and/or support internal and external efforts to meet COVID-19 information needs?
 - iii. **USE:** To what extent the selected COVID-19 knowledge products and data services contributed to FAO's and partners' efforts?
 - iv. **INCLUSIVENESS:** How did the COVID-19 knowledge products and data services ensure that the principle of “leave no one behind” was followed?
 - v. **BUSINESS CONTINUITY:** How were the development and dissemination of COVID-19 knowledge products and data services affected by the unfolding COVID-19 crisis?

1.2 Methodology

10. The evaluation relied on several sources of information, including secondary data, Cybermetric studies, semi-structured interviews and surveys, and used a mixed-method approach. The evaluation matrix (Appendix 3) provides further details on the methods used to respond to each of the questions.

¹ [72 COVID-19 Policy Briefs; 25 highlighted COVID-19 resources](#); and 500+ [COVID-19 reports and brochures](#).

² <http://www.fao.org/2019-ncov/en/>

³ <http://www.fao.org/2019-ncov/COVID-19-crop-calendars/en/>

⁴ <http://www.amis-outlook.org/>

⁵ <http://www.fao.org/in-action/fapda/fapda-policy-database/fr/>

- i. **Secondary data.** Different types of secondary resources were used to inform the assessment including:
 - *KPDS produced by FAO on COVID-19.* Data was obtained from OCC and technical units on COVID-19-related KPDS. This list was reviewed, mapped and categorized. A sample of 65 KPDS was selected based on i) the level of uptake as evidenced by the Cybermetric analysis and Altmetric data; and ii) to ensure representation of knowledge products developed by different offices. In consultation with key representatives from the technical team, 14 of the 65 KPDS analysed were selected for a more in-depth review of their contributions (see Appendix 4 – KPDS in bold were included in the sample).
 - *Dissemination data.* Data on dissemination approaches (products, events, webinars, etc.) and level of outreach (types and number of participants, etc.) was collected and reviewed.
 - *Web data analytics.* Google analytics or Amazon Web Services (AWS) data and (longitudinal) analysis of the number of site visits and products downloads were collected with the help of OCC and reviewed.
 - *Altmetric data.* References to the selected knowledge products and data services in news outlets, blogs, policy documents and social media (Facebook, Twitter) were collected with the help of OCC and analysed.
- ii. **Cybermetric studies.** Cybermetric⁶ data on selected KPDS was gathered by a specialized team.⁷ This analysis involved the following reviews:
 - *Websites citation and content analysis.* This involved analysing hit counts of web presence and uptake for selected KPDS by type of users (e.g. governments, academia, etc.) and a contextual review of KPDS cited on governments' websites.
 - *Twitter analysis.* Comparative analysis of uptake of KPDS on Twitter (reactivity).
 - *Social network analysis.* Diagram presenting the network formed by organizations (and types) with highest levels of uptake of selected KPDS.
 - *Counterfactuals.* Review of the level of web uptake of KPDS developed by other organizations considered complementary or competitors to FAO's KPDS (e.g. International Food Policy Research Institute [IFPRI], World Bank).
- iii. **Semi-structured interviews.** The RTE interviewed 38 FAO personnel and 12 external informants. Consultations were organized with:
 - *FAO authors/owners of KPDS.* Personnel involved in the development or adaptation of selected KPDS for review of the development and dissemination process of selected KPDS.
 - *Communications specialists.* OCC personnel and communications specialists in the technical divisions and in the regional offices for discussions on KPDS dissemination processes.
 - *FAO users.* FAO personnel at headquarters and in the decentralized offices, for assessment of the usefulness, use and types of influence of the KPDS. This involved gathering insights on why selected products were (perceived) influential.

⁶ Cybermetrics, or Webometrics, is mainly concerned with measuring aspects of the Web: web sites, web pages, parts of web pages, words in web pages, hyperlinks, web search engines.

⁷ Led by Prof Mike Thelwall from the Statistical Cybermetrics Research Group, University of Wolverhampton.

- *External users.* Consultations with a sample of external partners and donors identified in consultation with FAO personnel (including the World Food Programme [WFP], IFPRI, the World Trade Organization [WTO], the World Bank, United States Agency for International Development [USAID], the Ministry of Foreign Affairs of Japan, Government of Canada, Belgium) to talk about the KPDS' usefulness, use and influence.
- iv. **Surveys.** Two short survey questionnaires were disseminated:
- *FAO authors/owners of KPDS.* A questionnaire was administered to authors/owners of 14 knowledge products and data services to gather inputs on how the KPDS were originated, developed, disseminated and used (see template in Appendix Table 2).
 - *Users of KPDS.* A short survey was sent to the readers of the monthly FAO Newsletter to collect feedback on the usefulness of FAO's COVID-19 knowledge products and data services. The survey was open for two weeks. The questionnaire was in English. The survey collected 17 responses (see template in Appendix Table 3).

1.3 Limitations

11. The assessment confronted the following constraints or limitations:
- i. **Remote data collection.** The evaluation did not include country visits that would have allowed for face-to-face interviews and direct observations, which limited the collection of evidence on contributions. This constraint was mitigated by relying on complementary data collection instruments including review of web data, virtual interviews, Cybermetrics analyses, and self-reporting through personnel and users' surveys.
 - ii. **Limited availability of informants.** Interviews were held during the northern hemisphere summer holidays season with personnel from FAO and partner organizations not always readily available. This led the evaluation to extent the period of data collection by one month.
 - iii. **Limited number of survey respondents.** The users' survey received fewer responses than expected. This brought the RTE to perform a qualitative review of the survey results rather than a quantitative analysis.
 - iv. **Limited evidence to substantiate counterfactuals.** The RTE attempted to assess the extent to which FAO made a difference by considering the scenario: "What if FAO had not been there?" However, this proved difficult to elicit as interviews with informants and other data did not avail much specific insights and evidence.

1.4 Structure of the report

12. This report starts with an introduction on the assessment (section 1), followed by additional background on FAO's COVID-19 response and related KPDS (section 2) and the findings, good practices and lessons learned on the development and dissemination of KPDS (section 3). It also includes an executive summary, list of abbreviations and acronyms, and appendices with further information on the evaluation approach and analyses.

2. Background on FAO's COVID-19-related knowledge products and data services

2.1 Context

13. From its onset, the advent of COVID-19 has confronted governments, the development and the humanitarian community and society with a deteriorating socio-economic context. To facilitate coordinated policy response and mitigate the effects of the crisis, FAO engaged early on in the development of COVID-19-specific KPDS to support policy dialogue, advocacy and awareness raising activities to prevent the health crisis from becoming a food crisis.
14. Some key initiatives in this period include the Novel Coronavirus (COVID-19) Portal (launched in April 2020).⁸ The portal provides access to a brand-new section of the FAPDA database conveying policy decisions implemented by countries to mitigate the impacts of the COVID-19 pandemic on food and agricultural systems. The portal also features a policy platform that identifies and tracks useful policy responses that countries have adopted during past crises. To support informed decision-making, FAO published several policy briefs⁹ and contributed to the UN policy brief "*Impact of COVID-19 on food security and nutrition*", which outlines priority actions to address the immediate, near- and medium-term needs to protect people during and beyond the crisis, and – ultimately – to reshape and build resilient food systems.
15. By March 2021, FAO had published 72 policy briefs presenting both quantitative and qualitative assessments of the pandemic's impact on food supply chains, food trade and markets, smallholder producers, food insecurity, protection of the most vulnerable, statistical systems, as well as safe, resilient and sustainable food systems.¹⁰ FAO also published 512 books and brochures on COVID-19-related questions in 2020.¹¹ The COVID-19 crisis has also brought higher attention to FAO databases such as AMIS, an inter-agency platform to enhance food market transparency and policy response for food security launched in 2011 by the G20 Ministers of Agriculture following the global food price hikes in 2007/08 and 2010.

2.2 Theory of change

16. The evaluation developed a simplified version of the theory of change (TOC) of FAO's KPDS to guide its assessment of their contributions (see Appendix 6). Although FAO can act at different stages along the change pathways identified in the TOC, a simple way of explaining the causal chain starts with the identification of data gaps and information needs. Relevant FAO technical teams are then mobilized to respond to the needs for evidence and analysis, which in turn lead to knowledge products and data services being developed, disseminated and accessed by targeted recipients. Intended users then have information to design appropriate COVID-19-related interventions that mitigate the impact of the crisis and strengthen the long-term resilience of food systems and livelihoods.
17. From March 2020 onwards, these "change" pathways were taken in order to convey a range of "key messages" aimed at avoiding the health crisis from becoming a food crisis, and to promote

⁸ <http://www.fao.org/2019-ncov/en/>

⁹ http://www.fao.org/2019-ncov/resources/policy-briefs/en/?page=5&ipp=5&tx_dynalist_pi1%5Bpar%5D=YToxOntzOjE6Ikwio3M6MToiMCI7fQ%3D%3D

¹⁰ <http://www.fao.org/2019-ncov/resources/policy-briefs/en/>

¹¹ A search for the keyword "COVID" on FAO online library returned 1 462 resources (i.e. including flyers, posters, leaflets, infographics, etc.).

“building back better”. At first, KPDS were primarily based on historical data, but their content evolved as evidence from the field was collected. With the formulation of an umbrella programme for FAO's work on COVID-19 response and recovery, a specific PA was designed to enhance work on data for decision-making (PA2).

18. The TOC for PA2 (see Appendix 7), even though it presents different change pathways, can be briefly described as follows: stemming from the identification of stakeholders' data needs, one pathway aims to provide project partners with technical assistance to analyse the food security situation. Together with food insecurity experience scale (FIES) data, this leads to the development of analytical reports on the impact of COVID-19 on food insecurity. PA2 also aims to provide technical assistance and trainings on agricultural surveys and to support adapting data collection methods to the COVID-19 context. New data sources would also be tapped to deliver timely relevant data on the impact of COVID-19 on agriculture. Technical assistance, data and analytical reports would then provide partners with evidence to inform a cross-spectrum of subnational, national, regional and global responses, including policy responses, fiscal measures, trade policies and public investment initiatives.

3. Findings, good practices and lessons learned

19. This section is articulated around the key evaluation criteria of the RTE (relevance, coherence, contribution, inclusiveness and business continuity). Findings, good practices and lessons learned are sometimes cross-cutting and partly overlap with one or another criterion.

3.1 Relevance of FAO's COVID-19 knowledge products and data services

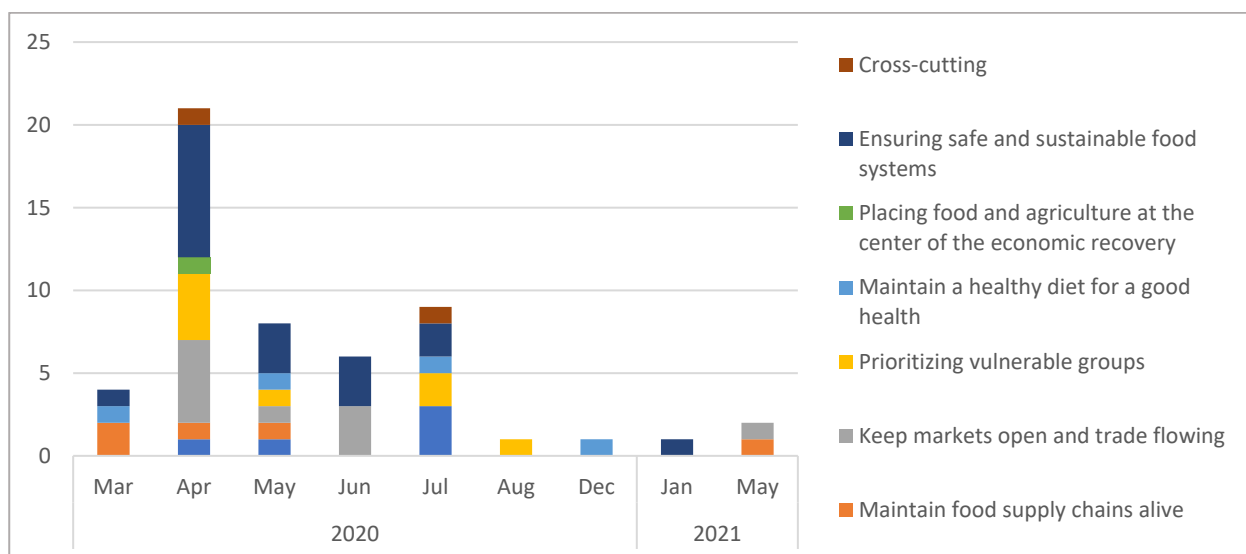
20. The efforts that FAO undertook to ensure that its COVID-19 KPDS were relevant provide a series of lessons learned and good practices. The evaluation considered the concept of relevance broadly by including not only the extent to which the KPDS were congruent with the needs of target users but also how the internal process and capacities facilitated or hindered the degree of relevance.
21. FAO's COVID-19 KPDS were developed in anticipation of and/or in response to emerging needs for policy support and technical guidance from FAO personnel, Member States and partners. Senior management spearheaded, both in terms of oversight and coordination, the development of the KPDS and determined their focus and prioritization. Some of the reported objectives were to disseminate knowledge products and data services that would be authoritative, timely and that would speak as "One FAO".
22. Multiple mechanisms and communication channels were used to disseminate COVID-19-related knowledge products and services. In April 2020, FAO established the COVID-19 Portal as the main repository for COVID-19-related policy guidance and hub for accessing selected resources. Sub-domains focusing on COVID-19 were also created on the websites of FAO's regional offices. FAO personnel also contributed to disseminate COVID-19-related knowledge products and data through e-mail lists and personal networks.

Good practice 1. FAO's COVID-19-related knowledge products and data services were developed in response to a strategic goal and directions set by senior management in order to prevent that the health crisis became a food crisis through a dynamic and participatory process.

23. FAO's COVID-19-related KPDS were developed in response to the strategic objectives and directions set by senior management in order to prevent that the health crisis became a food crisis through a dynamic and participatory process. Personnel's pro-activeness and the increased internal collaboration through frequent consultations and engagement with key external partners, led to the development of relevant products in a timely and comprehensive manner, permitting FAO to address emerging information needs.
24. FAO's response through KPDS was swiftly devised and was centred on the overarching goal of preventing that the health crisis become a food crisis. The RTE identified a series of messages being promoted by FAO,¹² including: ensuring safe and sustainable food systems, placing food and agriculture at the centre of the economic recovery, maintaining a healthy diet for a good health, prioritizing vulnerable groups, keeping markets open and trade flowing, and maintaining food supply chains alive. These messages were supported by a number of knowledge products and data services, which were published at different intervals in the period between March 2020 and May 2021 (see Figure 1).

¹² The COVID-19 portal includes a list of key messages at <http://www.fao.org/2019-ncov/en/>

Figure 1. COVID-19-related knowledge products and data services rolled out per key messages over time

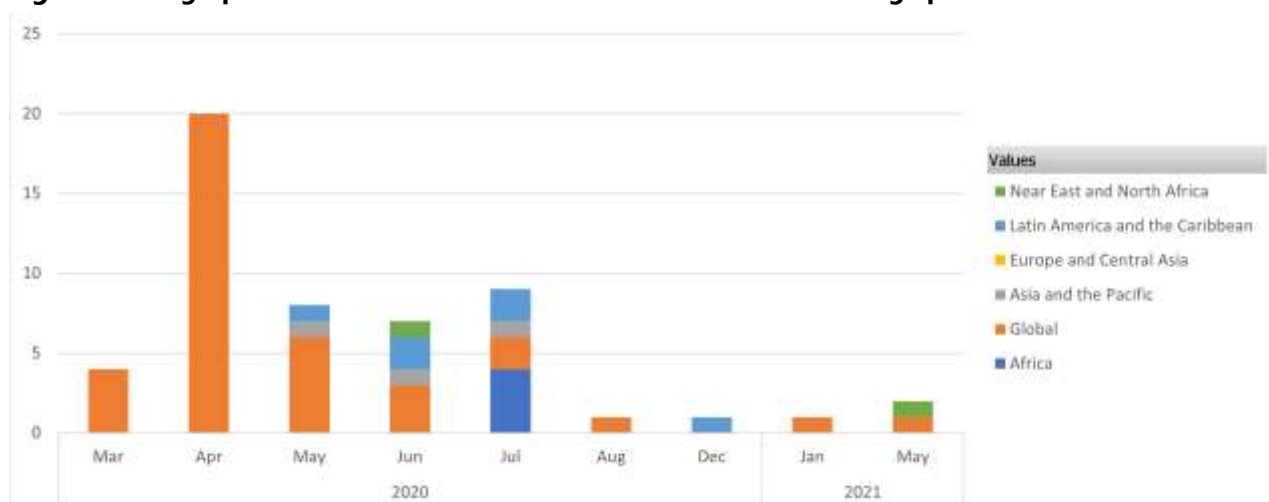


Source: RTE team analysis.

25. The RTE learned that coordination of the KPDS by senior management as well as involvement in their dissemination contributed to prioritize and highlight critical messages. FAO personnel and partners perceived that the range of KPDS was comprehensive and timely. Dissemination started in March and a peak in the production was reached in April 2020. KPDS supporting the key message *"Maintaining food supply chains alive"* were among the first ones to be disseminated. The Global Information and Early Warning System (GIEWS) Food Price Monitoring and Analysis (FPMA) Bulletin and the AMIS Market Monitor in March conveyed analysis reflective of the coronavirus potential impact on trade. In some cases, KPDS were preceded by concept notes and presentations. The policy brief on *"COVID-19 Channels of transmission to food and agriculture"* that was published on 14 April 2020 followed an initial concept brief produced in February and a presentation created in March 2020.

26. Although the COVID-19-related KPDS developed at the onset of the crisis (March-April 2020) had a global scope, these were found relevant by FAO's decentralized offices too. These were useful to position FAO in a period where many other organizations were also disseminating information. Global knowledge products started to inform the development of regional publications (from May 2020 onwards), while databases provided from the onset a capability to collect and organize content regionally. Figure 2 shows the geographic distribution of COVID-19 KPDS as of May 2021.

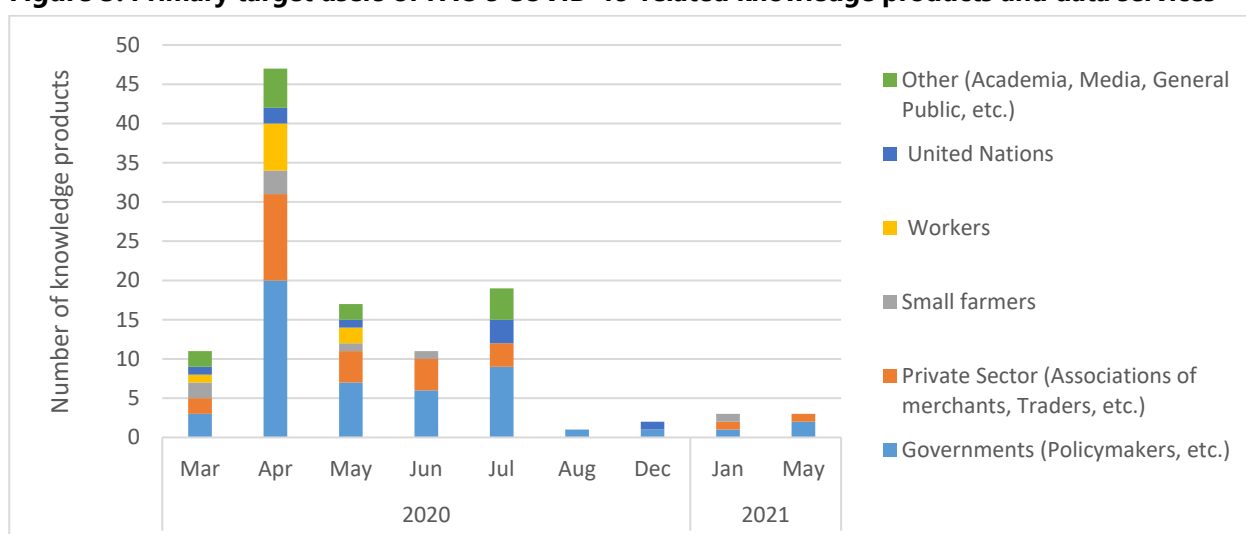
Figure 2. Geographic distribution of FAO’s COVID-19-related knowledge products and data services



Source: RTE team analysis.

27. The RTE noted that some knowledge products made explicit reference to their intended target users, which tended to be government actors. The RTE did its own analysis (see Figure 3) and noted that several KPDS could be potentially relevant for private sector actors, particularly when conveying the key messages to “Maintain supply chains alive”, “Ensure safe and sustainable food systems” and “Keep markets open and trade flowing”. The intention to reach public opinion through the media was also noticed since the earlier publications in March and April 2020.

Figure 3. Primary target users of FAO’s COVID-19-related knowledge products and data services



Source: RTE team analysis.

28. Some FAO personnel did not perceive the content of the COVID-19 knowledge products entirely adequate for groups such as youth, small farmers or the public. Capacities to “translate” technical content for such audiences were found limited, especially in comparison to other international organizations (e.g. United Nations Children’s Fund [UNICEF], United Nations Development Programme [UNDP]). Nevertheless, decentralized offices sought to adapt technical messages to the public and vulnerable communities (see section on inclusiveness). For example, the FAO Regional Office for Asia and the Pacific (RAP) disseminated good practices and advice to food systems players at all levels and in many languages.

Lesson learned 1. The capacity that the Organization has to collect and analyse data is an important determinant to how well it can respond to similar crises.

29. Surveys initiated by senior management, as well as country assessments conducted by the decentralized offices, contributed to inform FAO teams about the impact of the crisis and emerging needs for policy advice and technical guidance. Some surveys also contributed to the development of knowledge products. For instance, the Latin American Federation of Supply Markets and FAO disseminated four surveys with the participation of 93 markets from 17 countries in the region, whose results were the basis for the five bulletins on the "*Situation of wholesale markets in Latin America in the face of COVID-19*".
30. However, assessing country situations in the context of lockdowns and travel bans proved challenging. Decentralized offices reported a lack of pre-existing questionnaires that could be easily used and adapted in order to estimate the impact of the crisis. Over time, this was addressed through collaborations with headquarters-based teams, mutual support between regions and country offices, review of surveys from other organizations such as the World Bank, IFPRI and WFP, consultations with country partners and further analysis. Nevertheless, the small size of the survey samples together with remote data collection techniques sometimes created uncertainties about the robustness of the assessments. Questions remained for example about gathering the needs of the most marginalized communities that do not have access to a phone. Sampling limitations and the need for more transparency on the sampling methodologies were compounded by weaknesses in data collection capacities. Improving methodological skills of personnel in FAO's decentralized offices, and their preparedness for future crises, including through fostering partnerships, may help overcome such shortcomings.

Good practice 2. Adapting existing monitoring, early warning and information sharing systems proved to be an effective way to provide relevant information on the global crisis situation.

31. Initiatives such as AMIS and GIEWS that were created before the COVID-19 pandemic were swiftly adapted with data and analysis reflective of the impact of the crisis. FAO personnel and partners found useful to receive regular and reliable information about regional and subregional market situations through these KPDS. Decentralized offices found the GIEWS's FPMA tool a useful source of information. Furthermore, regional and country offices also contributed to informing GIEWS knowledge products, including the Food Outlook and the AMIS Market Monitor. Adapting these mechanisms and combining headquarters products with regional or subregional first-hand information was reported effective to monitor commodity prices and markets. These initiatives were perceived as relevant by providing an objective view about the short-term implications of the pandemic.
32. As a modality that contributed some synergies and efficiency, AMIS channelled the collection of policy measures related to COVID-19 to the FAPDA database. However, this solution was found as second best by AMIS compared to equipping the inter-agency platform with the capacities to further support the existing AMIS Policy Database. Also, some FAO personnel pointed out overlaps in policy monitoring databases, suggesting that end users' experience would have been improved by devising stronger integration between initiatives such as FAPDA, Monitoring and Analysing Food and Agricultural Policies (MAFAP), the Database of national legislation and international agreements concerning food and agriculture and renewable natural resources (FAOLEX) and FAO Big Data tool. Since the start of the pandemic, the need to establish closer links between FAPDA and FAOLEX and increase synergies became more pronounced.

3.1.1 Processes

Lesson learned 2. The headquarters-coordinated review and clearance mechanism for COVID-19-related knowledge products proved effective to prioritize key messages and disseminate reliable information but did not always respond to the need for timeliness and facilitate process monitoring from the decentralized

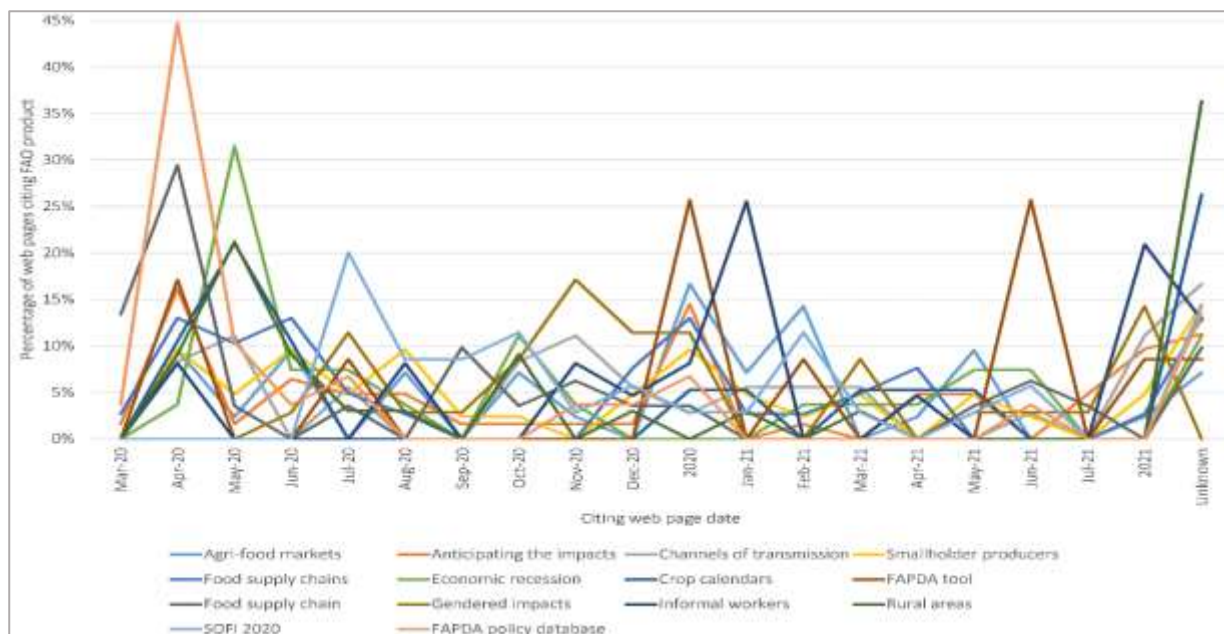
offices. In hindsight, the response could have benefitted from implementing streamlined processes so as to avoid the challenges faced.

33. FAO has been successful in reacting and adapting the development of KPDS despite periods of evolving roles, processes and templates. While global KPDS were found timely, FAO personnel in decentralized offices noted that the review and approval process of regional products was often slow. In several cases, FAO personnel reported having to wait four months or more before receiving comments on a regional knowledge product. Although this delay might have been used by headquarters to review quality, coherence and prioritization, it was perceived by regional personnel as diminishing the relevance of such products for which the crisis made timeliness critical and the “shelf life” of some products eventually short.
34. Furthermore, personnel from the regional and subregional offices qualified the review process as a “black box”. FAO’s global Publications Workflow System (PWS) comes with ten steps that imply back and forth communications between authors of publications, unit publications coordinators (UPCs) and OCC. Step 5 of PWS is dedicated to OCC quality clearance. However, the addition of a sub-step under step 5 to establish a COVID-19 related review left products out of OCC’s direct management without means to monitor how clearance was progressing. This left personnel in the decentralized offices wondering about the status of their publications and the criteria used for the review.
35. Following an audit report in 2020, FAO is working on the establishment of a global publications board and editorial committees. This mechanism will benefit from considering how to delegate authority to decentralized offices to allow for both global consistency and coordination as well as regional timeliness of knowledge products in crisis contexts and related adjustments to PWS.

Lesson learned 3. Timely and up to date knowledge products require fluid processes and suitable formats (mediums); with personnel having the appropriate skills to develop and disseminate knowledge products in crisis contexts an asset.

36. FAO personnel often had to manage a trade-off between the provision of accurate versus rapid and timely analysis and noted that the format of some knowledge products and the process towards their development did not necessarily work well within a crisis context. As mentioned by a member of personnel, *“In emergency situation, new information is coming in all the time”*. Several personnel highlighted that publications’ content was not easy to adjust as new data came in. Personnel suggested that some policy briefs would deserve to be regularly updated through a well-established revision process or to have an “expiration date”. Figure 4 shows the short shelf-life that many of the KPDS have.

Figure 4. Citation of selected knowledge products and data services over time



Source: Cybermetric analysis.

37. Publications formats allowing content management through dynamic editing and live links, or products that could remain working documents were found options worth exploring. The Q&A section of the COVID-19 portal for example was noted an effective tool to keep providing easily adjustable and up to date information. Some personnel also reported limited prior exposure to disseminating data and analysis in rapidly evolving crisis contexts. This was found requiring specific skills. It was therefore suggested for FAO to strengthen personnel's capacities to engage in crisis communications.
38. Regular bulletins and newsletters were found effective to disseminate data and analysis to large audiences and led to further uptake on social media channels. In the COVID-19 context, where a lot of unknown and uncertainties prevailed, the dissemination of regularly updated data and analysis through newsletters responded to a demand and provided significant reach and visibility to FAO's key messages. The periodic *"Analysis and responses of Latin America and the Caribbean to the effects of COVID-19 on food systems"* developed jointly by FAO and the Economic Commission for Latin America and the Caribbean (ECLAC) was one of the most disseminated knowledge products on Twitter channels in comparison to the range of FAO's COVID-19-related KPDS. Such products were effective in raising awareness and visibility on FAO's key messages although rarely referred to in policy processes or in academic papers or reports from international organizations.

3.1.2 External dimensions

39. About 20 percent of the RTE's larger sample of COVID-19-related KDPS were developed with external partners, primarily UN organizations and to a lesser extent academia. The priority areas that relied the most on external collaboration were PA7 followed by PA4. Examples of knowledge products involving external partners included a policy brief on *"Mitigating the effects of the COVID-19 pandemic on food and nutrition of schoolchildren"* jointly developed by FAO and UNICEF; and a policy brief on *"COVID-19 and Food Safety Guidance for competent authorities responsible for national food safety control systems"* developed by FAO and the World Health Organization (WHO). By the end of March 2020, FAO and several national institutions and academic partners also published a report on *"Exposure of humans or animals to SARS-CoV-2 from wild livestock companion and aquatic animals"*. Joint products and many dissemination events

were also organized with UN partners, such as the International Labour Organization (ILO) and UN-Women. At regional level, the collaboration between FAO and ECLAC produced early on a series of bulletins.

40. External collaborations with UN partners and other organizations were reported to have grown over time. However, according to external partners, there would have been room for increased collaboration between FAO and WFP to ensure that consistent messages were disseminated about the potential impact of the crisis on food insecurity. According to partners, collaboration may involve joint work on methodological approaches, data collection and statistical analysis. It was also indicated that datasets reported and analysed in FAO's knowledge products could be made publicly available to facilitate uptake and reuse.

Lesson learned 4. Pre-existing partnerships facilitate the timely development of knowledge products. In all cases, there is a need to account for the development processes and clearance requirements from partners since this may add time before products are disseminated which, in a crisis context, may reduce their relevance.

41. Several COVID-19-related knowledge products developed by FAO and other organizations were done so in a timely fashion, such as the FAO-ECLAC Bulletins, or the AMIS Market Monitor. Production of those products were based on well-established partnerships and experience of previous collaborations. However, in one case the attempt by a decentralized office to jointly develop a knowledge product ended up requiring to be reviewed by the International Plant Protection Convention (IPPC) and WHO. Clearance took about one year to be received, due partly to the crisis and the priorities that these partners had, at which time the product was not found relevant anymore and was set aside.

3.2 Coherence of FAO's knowledge products and data services with internal and external efforts to meet COVID-19 information needs

42. The efforts that FAO undertook to ensure that its COVID-19 knowledge products and data services complemented other related initiatives provide a series of lessons learned and good practices. The evaluation considered the concept of coherence broadly by including not only the extent to which the KPDS were complementary to internal and external efforts to meet COVID-19 information needs but also how the internal process and capacities facilitated or hindered the degree of coherence.

3.2.1 Internal dimensions

43. Many of the early COVID-19-related knowledge products and data services also influenced the design of FAO's COVID-19 Response and Recovery Programme; consequently, the programme's PAs were consistent with the key messages conveyed in them.¹³ The priority areas concept briefs made explicit reference to several knowledge products although others were inter-related. The two PAs to which knowledge products and data services were more frequently related are PA4¹⁴ and PA7,¹⁵ with 25 products from the sample addressing each of these priority areas (Figure 5).

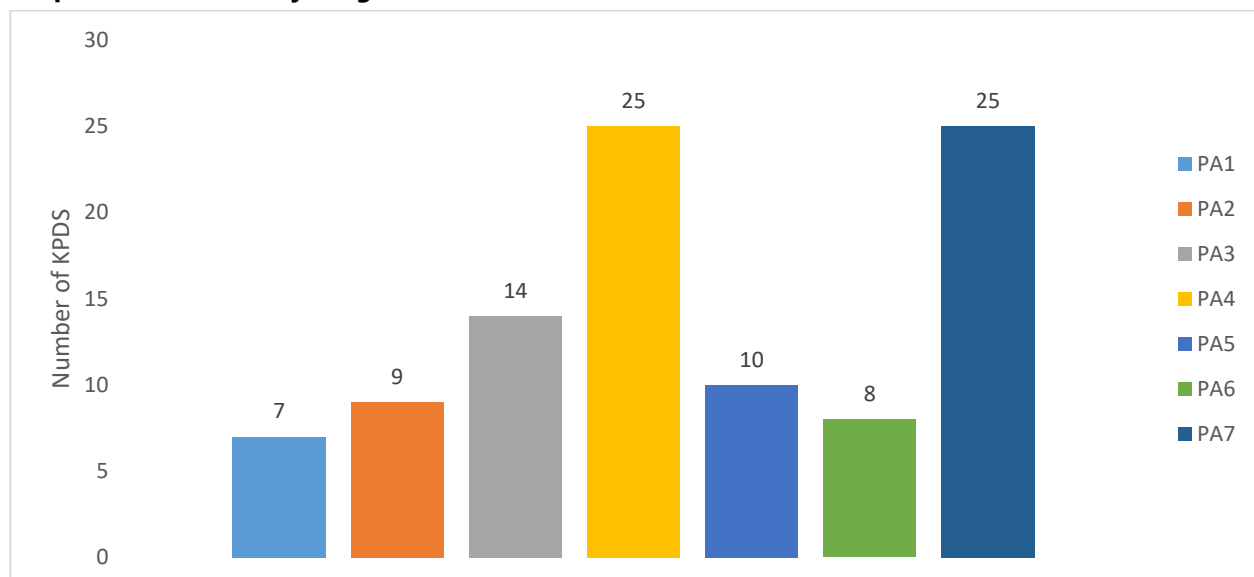
¹³ There were some variations regarding the level of coverage of PAs through knowledge products which could also cover more than one priority area.

¹⁴ PA4 - Trade and Food Safety Standards: Facilitating and accelerating food and agricultural trade during COVID-19 and beyond.

¹⁵ PA7 - Food Systems Transformation: "Building to transform" during response and recovery.

44. Conversely, PA1¹⁶ was found the priority area to which the smallest number of knowledge products were linked. Some FAO personnel mentioned that there was room for further mainstreaming into PA1 the guidance conveyed by COVID-19-related knowledge products on social protection. However, the humanitarian response plan was formulated before this guidance was made available.

Figure 5. Number of knowledge products and data services per priority areas of FAO's COVID-19 Response and Recovery Programme



Source: RTE team analysis.

Good practice 3. The coordination of the development process in substantive terms of COVID-19-related knowledge products and data services contributed to ensure consistent key messages from offices/divisions. The development of common templates, communication resources and publishing standards helped to harmonize policy briefs.

45. Coordination of the development process of COVID-19-related KPDS by senior management contributed to present one official FAO position and to bind technical areas around key messages. FAO personnel reported that the guidance on knowledge products was at first not very clear, consistent and stable, with different formats being requested by different sources and evolving over time. However, the creation of a standard for policy briefs provided a consistent design and layout. The dissemination of guidelines to communications specialists in the technical teams and regional offices facilitated the adoption of common publishing standards and reduced the time devoted to quality checks. Some unit publications coordinators also reported strengthened capacities owing to such guidelines as well as to closer interactions with OCC. In order to cope with a 50 percent increase in the number of knowledge products developed by technical personnel, the Agri-food Economics Division (ESA) communication team created an online kiosk (i.e. intranet site) where authors could find guidance materials for the development of publications. This contributed to streamline support and to facilitate more consistent products and quality.

Good practice 4. The management of the response to the crisis fostered technical teams and personnel at headquarters and in decentralized offices to work as "One FAO", increasing "horizontal" and "vertical" cross-collaboration in the development of KPDS.

¹⁶ PA1 - Global Humanitarian Response Plan: Addressing the impacts of COVID-19 and safeguarding livelihoods in food-crisis contexts.

46. Some personnel perceived the response as a *"silo breaking exercise, from a technical and communications point of view"*, which led to higher levels of internal collaboration. Several policy briefs were the result of a collaboration between technical teams such as the Statistics Division (ESS) and ESA e.g. *"COVID-19 global economic recession: Avoiding hunger must be at the center of the economic stimulus"*; or between ESA and the FAO Office of Emergencies and Resilience (OER) e.g. *"Anticipating the impacts of COVID-19 in humanitarian and food crisis contexts"*. Various knowledge products were also developed by headquarters-based personnel in collaboration with decentralized offices. Markets and Trade Division (EST) personnel noted that several products aimed at advocating for greater priority to vulnerable groups were developed with inputs from decentralized offices. The policy brief on *"Social protection and COVID-19 response in rural areas"* benefited from contributions by members of the FAO Rural Poverty network. Collaboration with the gender teams in decentralized offices also led to the development of the policy brief on *"Gendered impacts of COVID-19 and equitable policy responses in agriculture food security and nutrition."*

Lesson learned 5. The crisis situation made it difficult to devise how to synergize different types of knowledge products in order to create bundles that would target more comprehensively specific categories of end users.

47. In addition to developing 72 policy briefs, FAO published 512 books and brochures on COVID-19-related questions in 2020. Technical personnel and partners rarely expressed concerns about such a large volume but were unclear about the overall consistency of the production with FAO's key messages and the level of complementarity between products.
48. FAO was effective in creating different types of KPDS as well as in designing and applying publishing standards, and in promoting these efforts through a common COVID-19 Portal. However, in hindsight, additional efforts could have been made in order to develop clusters of knowledge products. A detailed targeting approach and content development strategy would have maximized synergies between different types of KPDS to provide different groups of end users with a more cohesive, comprehensive and tailored body of knowledge.
49. Focusing on different categories of stakeholders and on their specific needs and constraints may help to devise larger but consistent and action-oriented knowledge and data packages. Involving knowledge management specialists may support management, technical personnel and communications specialists in the identification of specificities and complementarities between products. External partners and donors further suggested that FAO could consider involving specialists in behavioural sciences when designing and disseminating KPDS.

Lesson learned 6. Depending on the data sources used, team composition, degree of collaboration and level of effort required to develop knowledge products varied.

50. Authors of knowledge products developed during the initial phase of the pandemic, which were based primarily on the analysis of historical data or *"past knowledge"*, indicated that forming small teams with complementary areas of expertise was an effective approach to developing quality products in a short timeframe. However, authors of products relying on new data or on up to date evidence of impact mentioned that a lot of collaboration was needed for data gathering and analysis.
51. Monitoring policy measures for example was a demanding exercise when covering 60 countries and having to double check each policy. The development of a knowledge product based on that type of data and analysis needed to rely on FAO's networks of technical specialists and programme personnel. The lack of pre-existing coordination procedures helping to link technical

personnel with decentralized teams as well as the absence of templates for data collection and for knowledge products were a constraint when developing this type of product. Some stakeholders noted that there was room for improving functional lines between headquarters-based personnel and personnel in decentralized offices, so as not to rely on personal networks.

3.2.2 Dissemination

52. Multiple mechanisms and communication channels were used by headquarters and decentralized offices to disseminate COVID-19-related KPDS. Various tools were available within FAO to assess the extent to which KPDS were consulted. FAO corporate newsletters system for example was reported effective to deliver analytics in near real-time to communication specialists. The newsletter platform generates statistics allowing to know how many people have read a given article per country and per target group. This helped to gauge the reach of the information conveyed in newsletters. In some divisions, such as EST, usage statistics were shared with personnel every three to four months as well as on demand. However, the lack of integration between data platforms and low usability of some systems prevented technical personnel from easily getting granular and comprehensive analytics about the extent to which knowledge products were accessed.
53. Furthermore, some of the tools are cumbersome to use, such as AWS that indicated the number of times a product has been downloaded. In addition, personnel did not necessarily know about the Altmetric system that FAO adopted to monitor the use of publications. The extent to which social media channels generated attention in each knowledge product was also not systematically tracked and shared. There was a lack of integrated and easily accessible dashboard that would have provided technical personnel and management real time analytics about the level of access to knowledge products to eventually adjust or expand dissemination approaches or to inform additional substantive developments.

Lesson learned 7. The lack of familiarity with dissemination plans or guidelines for ensuring coordinated dissemination planning and implementation by technical personnel contributing to the diffusion of knowledge products and data services limited the extent of the outreach efforts.

54. FAO promoted KPDS mainly through newsletters. EST for example released close to 180 newsletters in 2020 using FAO's corporate platform for newsletters. However, some authors interviewed by the RTE were unsure about the existence of a dissemination strategy or about the extent of its reach. A gender specialist in a regional office reported having received the gender policy brief from various sources but questioned the extent to which it had reached personnel outside of the networks of gender specialists and focal points. The link between PWS and dissemination activities was not always clear to authors and contributors to knowledge products. The extent to which the dissemination of KPDS was supported by a detailed stakeholder analysis was also unclear. External partners and donors found that FAO did not necessarily involve its partners and networks in dissemination activities, such as national technical committees, or the national and regional food security clusters.

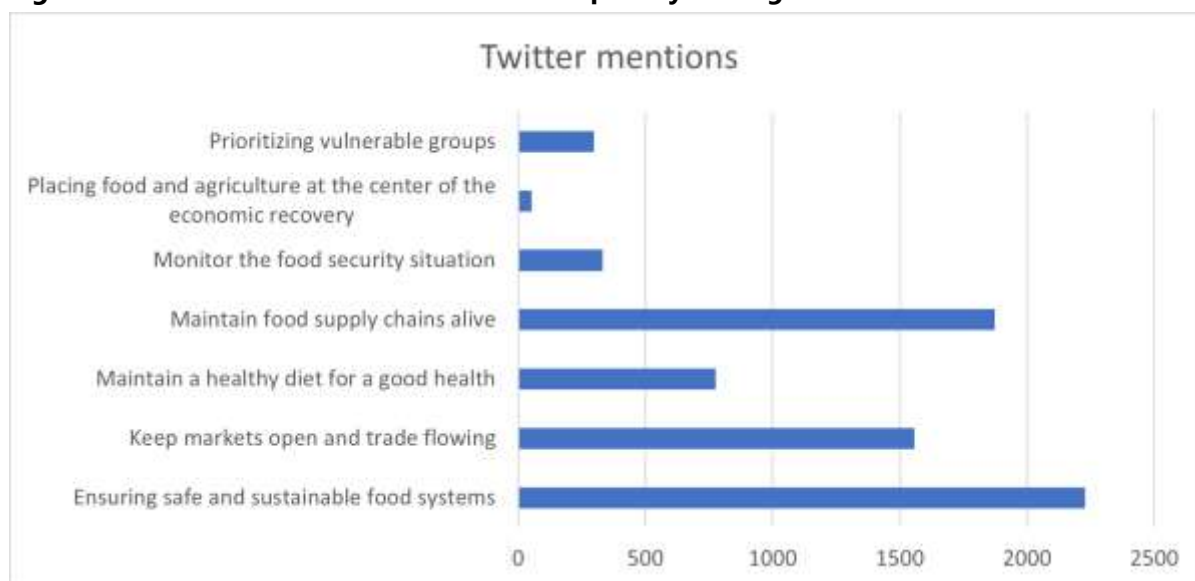
Good practice 5. Dissemination was facilitated by the use of various media, making available pre-packaged promotional content and presentations and by adapting content to target audiences.

55. Knowledge products were sometimes supported by press releases. For example, the launch of the policy brief on *"COVID-19 global economic recession: Avoiding hunger must be at the centre of the economic stimulus"* was complemented by an op-ed in English and Spanish on *"Understanding the Hunger Surge Caused by the COVID-19 Recession to Mitigate It Before It Is Too Late"*. Some policy briefs were promoted through partners' platforms, such as the Social Protection Knowledge

Sharing Gateway (socialprotection.org), which highlighted the launch of the policy brief on *“Social Protection and COVID-19 response in rural areas”* and was used to showcase knowledge products and dissemination events jointly delivered with ILO. The use of presentations was also found effective to facilitate the dissemination of COVID-19 knowledge products and data. The presentation accompanying the policy brief on *“COVID-19 channels of transmission to food and agriculture”* was used several times in full or in parts by the Chief Economist for example.

56. “Pre-packaged” dissemination materials, videos, visuals, key messages for Twitter and other social media platforms that could be copied/pasted were also found useful by regional offices. To support Member countries and partners’ COVID-19 response, specifically under component IV of the COVID-19 Humanitarian Response Plan (HRP) (to reduce the risk of transmission), OER developed a set of communication and knowledge products under the Bahamas-funded project. This includes products in various languages plus key technical messages identified per sector, and adaptable templates that country offices can use to create localized content, and some pre-written tweets to facilitate dissemination. Key messages, static social media posts and public service announcement scripts for radio were made available in Arabic, English, French and Spanish. Texts for static and animated social media posts were also prepared in Bambara, Urdu, Pashto, Mossi and Haitian Creole. The social media toolkit developed by the Regional Office for Latin America and the Caribbean (RLC) on forest governance was also mentioned as a good practice to consider replicating. Simultaneously, personnel stressed the importance of tailoring talking points and presentations to specific audiences, such as for region- or sector-specific events.
57. Social media channels such as Twitter, Instagram, Facebook and LinkedIn were also leveraged by OCC and technical personnel for dissemination. For example, the policy brief on *“COVID-19 and smallholder producers: access to markets”* was announced on FAO’s main Twitter account and was further retweeted more than 300 times. The State of Food Security and Nutrition in the World (SOFI) 2020 had a very high coverage on Twitter, owing to the specific visibility of the flagship and active social media campaigns. When leaving SOFI 2020 aside, the key messages that were mentioned the most on Twitter were about *“Ensuring safe and sustainable food systems”* and *“Maintain food supply chains alive”* (Figure 6).

Figure 6. Total number of “Twitter mentions” per key message



Source: Altmetric.

58. Metrics further show that about one- third of the products in the RTE sample were mentioned more than 100 times on Twitter.¹⁷ The most mentioned products were SOFI 2020 (2 097 mentions) followed by the presentation on *"COVID-19 and the risk to food supply chains: How to respond?"* (1 380 mentions), and by the policy brief on *"COVID-19 and smallholder producers' access to markets"* (986 mentions). An issue from the regional FAO-ECLAC Bulletin on *"Food systems and COVID-19 in Latin America and the Caribbean N° 8: The opportunity for digital transformation"* came fourth with 608 twitter mentions. However, close to one third of the knowledge products composing the RTE sample were mentioned less than ten times on Twitter. In addition, KPDS were not systematically promoted through social media platforms.

Lesson learned 8. Thorough and multi-faceted analysis for effective targeting of specific types of users or communities is very difficult to conduct in a crisis context.

59. FAO personnel and partners were unsure about the effectiveness of the dissemination of the COVID-19 related KPDS for some groups of target users, including policy makers and advisors, and the youth. According to FAO partners and donors, targeted dissemination required communication and marketing skills but also the application of behavioural change theories. External partners also mentioned that smartphones were the most pervasive way to access information online in many countries and for many different types of target users. COVID-19-related KPDS did not benefit from apps and push technologies. Communicating in the language of the youth and collaborating with social media influencers were also reported more spontaneously done by other UN agencies.

60. In many instances, KPDS were disseminated through high-level meetings and conferences, either directly or as resources informing working documents and statements. The policy brief on *"Agri-food markets and trade policy in the time of COVID-19"* for example informed the development of an Africa-specific policy brief for the African Union Commission (AUC) ministerial meeting in April 2020, that was jointly organized by FAO. Jointly with AMIS products, it was also considered during the development of FAO/WHO/WTO's joint statement to the G20 at the end of March 2020. AMIS data and analysis were also used to inform FAO's submissions to the WTO Committee on Agriculture. The analysis formulated in knowledge products and underlying data were also broadcasted through media outlets and channels. FAO Chief Economist was interviewed by CNN (16 March 2020) on *"The Challenge of Food Security in Times of Coronavirus"* and by the BBC (24 March 2020) on *"The Coronavirus and Global Food Trade"*, calling to enhance emergency food assistance and safety nets for vulnerable populations, and to keep the supply chains open.¹⁸ Personnel frequently noted the effectiveness of dissemination by senior management.

61. Webinars was one of the preferred means to disseminate KPDS. Online meetings and conferences were actively used by personnel both at headquarters and in the decentralized offices. Online events engaged sometimes several hundreds of participants. Building on the content of the policy brief on *"Social Protection and COVID-19 response in rural areas"* and other knowledge products, RAP organized a webinar in July 2020 on the *"Impact of COVID-19 and social protection: What measures work?"* that gathered more than 300 participants in the region, including government officials and non-governmental organizations (NGOs). The recording and sharing of such events led to a much longer shelf life. FAO's first online conference in early April 2020 on *"COVID-19 and Food Systems Series"* organized by RLC has, by August 2021, been viewed more than 24 000 times on YouTube.

¹⁷ Based on Altmetric data.

¹⁸ <https://maximotorero.com/>

3.3 Initial use of FAO's COVID-19 knowledge products and data services

62. The evaluation gathered data on the initial use made of FAO's KPDS. It assessed the level of use by considering how COVID-19-related KPDS were taken up by different groups of internal and external users to inform and influence policies, programmes and practices.

3.3.1 Internal use

63. FAO personnel found COVID-19-related KPDS useful to provide an assessment about the impact of the crisis and build a shared understanding about FAO's position and response. KPDS supported FAO personnel in leading or engaging discussions with different partners and stakeholders, including ministries of agriculture, UN agencies and farmer associations. COVID-19-related KPDS were effective at promoting evidence-based policy options and key messages that informed, inter alia, decisions to prevent or remove trade restrictions and to avoid the health crisis from becoming a food crisis.

3.3.2 External partner's use

64. External partners and users also considered FAO KPDS as valuable. Several high-level meetings were informed by FAO's COVID-19-related knowledge products and data services. Ministerial meetings and dialogues were also convened in Africa,¹⁹ Latin America,²⁰ or Central Asia,²¹ where FAO personnel outlined key messages supported by the COVID-19-related KPDS. When considering external webpages referring to FAO's COVID-19-related KPDS, the results show that "*Food supply chain under strain: What to do?*" started to be cited in March 2020. Most of the key messages were taken up in April 2020, suggesting that FAO had a very fast impact on the world, given that the pandemic was declared by WHO on 11 March 2020.

3.3.3 Thematic use and linkages

65. The Cybermetric analysis performed a social network analysis (SNA)²² of the web pages citing a sample of COVID-19-related KPDS. The SNA highlighted clusters of products indicating that several KPDS were used in similar contexts (Figure 7) and support the message that they could benefit from being "bundled" both in coverage and typology. The SNA also showed that AMIS and the AMIS Market Monitor were "connected" to many other KPDS and therefore a central reference in different contexts and for different groups of end users. The briefs on "*Impact of COVID-19 on informal workers*", "*Gendered impacts of COVID-19 and equitable policy responses in agriculture food security and nutrition*", and "*Social protection and COVID-19 response in rural areas*" were cited on similar web pages and in related contexts. However, connections of these briefs with other KPDS were not very strong, suggesting room for further linking gender and leave no one behind (LNOB) principles with other COVID-19 related key messages and/or to disseminate them to broader networks.

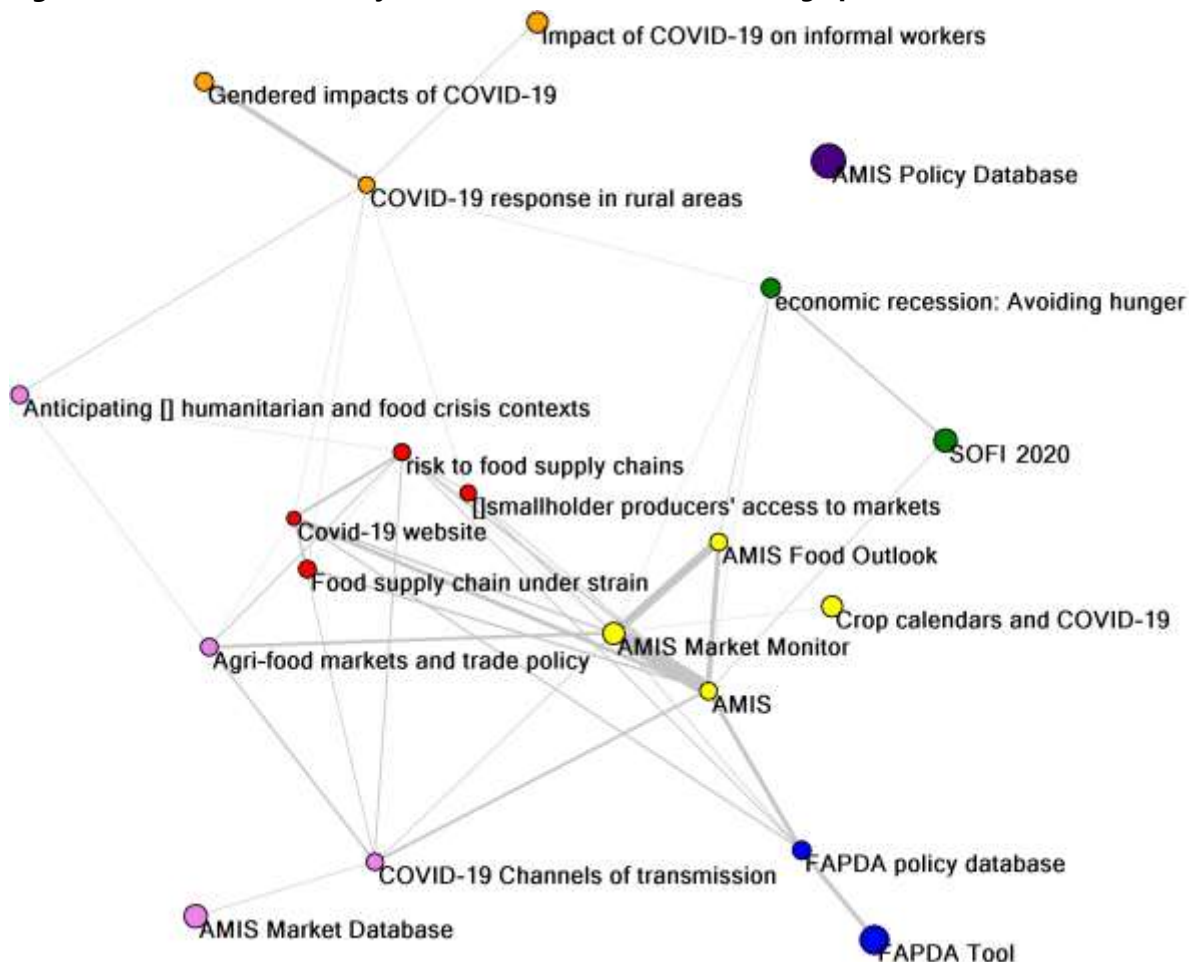
¹⁹ <http://www.fao.org/about/meetings/fao-au-ministerial-meeting/en/>

²⁰ <https://www.iica.int/en/press/news/ministers-and-secretaries-agriculture-34-countries-americas-coordinate-actions-ensure>

²¹ <http://www.fao.org/europe/events/detail-events/en/c/1275641/>

²² The SNA was based on the RTE's sample of 14 knowledge products and data services. The SNA graph presents lines between nodes that indicate that the webpages citing the knowledge products or data services tended to have similar titles, suggesting that they were discussed online in similar contexts. Thicker lines indicate more similar titles. Clusters of knowledge products or data services discussed by similar webpages are given the same colour (decided by an algorithm). Text similarity is judged using cosine similarity with the vector space model applied to citing webpage title words.

Figure 7. Social network analysis of COVID-19-related knowledge products and data services (sample)



Source: Cybermetric analysis.

3.3.4 Increasing utility of knowledge products and data services

Good practice 6. Collaborating with external actors for the development of COVID-19-related knowledge products and data services contributed to build a shared understanding about the impact of the crisis and was reported very effective to disseminate key messages and to support their uptake.

66. The AMIS inter-agency platform was perceived an effective modality to collect data from partner agencies and formalize joint analyses. The AMIS webinars as well as the meetings of the Rapid Response Forum were found useful vehicles to collect factual insights and data. Trust between AMIS members was perceived an important attribute that supports buy-in of the analysis and uptake of key messages. FAO personnel and partners mentioned that data and knowledge products delivered by AMIS contributed to inform the March 2020 FAO/WHO/WTO joint statement to the G20 calling to mitigate the impacts of COVID-19 on food trade and markets.
67. Another example of uptake was provided by the FAO-AU (African Union) Task Force on the impact of COVID-19 on Food Security and Nutrition in Africa. The task force brought together major stakeholders including the World Bank, the International Fund for Agricultural Development (IFAD), WFP, the African Development Bank (AfDB), and the European Union. Several FAO knowledge products that supported the work of the task force were channelled to the Meeting of the African Ministers for Agriculture on 16 April 2020 and informed the final Declaration on Food Security and Nutrition during the COVID-19 pandemic. Engagement from senior management and high-level officials as well as collaboration and trust between members of such

initiatives (jointly supported by evidence-based knowledge products and other data sources) were reported some of the key factors that enabled uptake of knowledge and data.

68. Personnel in decentralized offices also mentioned that KPDS were useful to support the contextualization of the analysis and helped to save time. External users stressed the importance to localize knowledge products and the need to pursue in that direction, as highlighted by a survey respondent: *"More specific studies, for example, at national, regional or local level [are needed]. FAO headquarters is generating many interesting and timely information but national (country) reports, studies, etc. are necessary. In addition, local action at country or sub country level are urgently needed as a response to the external shock, and it would be important to have FAO involved so not only they provide technical support and advice, but FAO also generates information regarding these specific case studies"*.

3.3.5 Catalytic use

Good practice 7. Leveraging global knowledge products and data services was very useful to inform the development of additional analysis, developing and repurposing projects and providing more focused guidance contributing to better targeting specific sectors, regions or communities.

69. Many global knowledge products and data services were leveraged by decentralized offices to develop more targeted reports. FAO personnel in decentralized offices also perceived the COVID-19 knowledge products raised attention on communities not sufficiently targeted before the crisis and to identify areas of possible collaboration with ministries of agriculture and other partners, for example on extending farmers registry, economic inclusion and vulnerability assessments. Some examples include:
- i. The FAPDA database and the policy brief on *"Social Protection and COVID-19 response in rural areas"* informed a regional policy brief on *"Social protection: ensuring effective response and inclusive recovery in the context of COVID-19 in Africa"* which was developed with AU and disseminated ahead of the meeting of the African ministers for agriculture in April 2020.
 - ii. The policy brief on *"Gendered Impacts of COVID-19 and Equitable Policy Response in Agriculture, Food Security, and Nutrition"* was also used by all regions. The FAO Regional Office for Near East and North Africa (RNE) took up the gender brief to produce a note on *"Adding a gender lens into FAO's response to COVID-19 – Programme guidance"* aimed to support country offices and technical groups with programmatic guidance on integrating a gender lens into the COVID-19 response.
 - iii. Policy briefs promoting the prioritization of vulnerable groups also informed a range of knowledge products focusing on specific sectors, such as *"The role of social protection in the recovery from COVID-19 impacts in fisheries and aquaculture"*.
70. Several cases were reported of KPDS informing the formulation or repurposing of the Technical Cooperation Programme (TCP) projects. In Latin America and the Caribbean, the gender brief was disseminated to countries to support the adaptation of projects and field programmes during the pandemic. Ecuador, Venezuela (Bolivarian Republic of), the Dominican Republic and Paraguay were mentioned being some of the first countries to use gender information and technical support to adapt annual work plans and projects.
71. Several examples of uptake were also provided by the policy brief on *"COVID-19 global economic recession: Avoiding hunger must be at the centre of the economic stimulus"*. The brief informed the development of the action sheet of the umbrella programme's PA2 on *"Data for decision-making"*. It also contributed to the formulation of a USD 500 000 project funded by the Multidisciplinary

Fund (FAO, 2020m) on strengthening governments' capacity for enabling an economic and social recovery post-COVID-19 through investments in agri-food sectors which resulted in, among others, a technical study for the Government of Mexico to assess investments options for promoting agricultural productivity (Sánchez, Cicowiez and Ortega, 2021).

72. Knowledge products supporting the key message to "*Monitor the food security situation*" also informed the design of PA2 of the umbrella programme. PA2 contributed to initiate 27 projects and mobilized a total budget of USD 3 449 198, which was equal to the 2 percent of the total programme delivery.²³ Most of the projects tagged under PA2 are delivered in the Regional Office for Africa (RAF), 16 projects in total, followed by RNE with four projects. RLC, the Regional Office for Europe and Central Asia (REU) and RAP each have two projects while one project is delivered at global level.

3.3.6 Monitoring use

Lesson learned 9. The absence of monitoring data on the use and contributions of KPDS limited FAO personnel's ability at headquarters and in decentralized offices to inform future follow-up actions, including more targeted advocacy, increased dissemination and provision of technical assistance.

73. Beyond the perception that the key messages "*have been heard*", FAO personnel could not share much evidence about the specific contribution of the COVID-19-related KPDS to the response beyond those mentioned. Many personnel were unclear about the level of uptake and influence of the KPDS on project formulation and funding proposals. External partners and donors also pointed out limited impact monitoring mechanisms within FAO projects and programmes.
74. FAO personnel also mentioned not knowing how KPDS were used by external partners and stakeholders and the extent to which they influenced policies, programmes, and practices. Outcome monitoring mechanisms for specific knowledge products, such as user surveys, were found lacking. While these shortcomings were not necessarily due to the COVID-19 crisis, they were sometimes found to have reduced opportunities to inform future actions including more targeted advocacy and technical support. Appendix 8 provides initial evidence that, had it been available, it could have been used to guide follow-up actions.

3.4 Inclusiveness and leave no one behind principle in FAO's COVID-19 knowledge products and data services

75. The evaluation assessed the extent to which the principle of LNOB was mainstreamed in the COVID-19 KPDS. The analysis relied on complementary data collection and review instruments.
76. The RTE reviewed a randomly selected sample of 17 knowledge products to gauge the degree to which they mainstreamed gender and LNOB principles. The degree of mainstreaming was analysed by rating each knowledge product with a "Knowledge Products Rapid Assessment Tool" specifically developed by the RTE. Some of the selected knowledge products (n=5) were classified as "having limited potential to promote gender equality and LNOB approaches (n/a)".²⁴ Ratings

²³ As of 8 August 2021.

²⁴ For example, the "*Food safety in the time of COVID-19*" brief was a technical note with a very narrow scope regarding harmful pathogens; likewise, the primary purpose of the RLC note "*Disponibilidad de datos estadísticos para enfrentar la pandemia de COVID-19*" is to disseminate a list of statistical information sources/websites, even though it does mention the need to attend to the needs of the most vulnerable in its introduction.

were converted to a three-point scale to reflect the degree of mainstreaming (Low- 0-33 percent; Medium 34-67 percent and High 68-100 percent).

77. The analysis showed that FAO knowledge products related to COVID-19 supported and advocated for the rights of and the inclusive targeting of women, minorities and marginalized groups by consistently mainstreaming gender and LNOB principles (Table 1). Some slight variations were also noted. The degree to which gender topics were mainstreamed in the knowledge products rated slightly lower than LNOB. This can be explained, in part, by gender issues being considered, at times, as a sub-set of LNOB. Gender issues should be seen as often intersecting with LNOB concerns rather than being viewed as a sub-set. Furthermore, the narrower and more technical the scope/subject matter addressed by the knowledge product the harder it was to mainstream gender and LNOB issues.

Table 1. Knowledge products degree of issue mainstreaming

Issue	Degree of mainstreaming		
	Low	Medium	High
Gender	0	5	7
LNOB	0	0	12

Source: RTE team analysis.

78. The knowledge products were also grouped according to the key message they addressed. The degree of mainstreaming per key message (Table 2) confirms that the key message "*Prioritising vulnerable groups*" has the most knowledge products rated as "High" (all of the eligible ones) while "*Keep markets open and trade flowing*" has the lowest ratings for gender. LNOB rated "High" across the key messages with eligible knowledge products.

Table 2. Degree of issue mainstreaming per key message

Key message	# Eligible	Issue	Degree of mainstreaming		
			Low	Medium	High
Ensuring safe and sustainable food systems	4	Gender	0	2	2
		LNOB	0	0	4
Prioritizing vulnerable groups	5	Gender	0	0	5
		LNOB	0	0	5
Cross-cutting (programme description)	0	Gender	-	-	-
		LNOB	-	-	-
Keep markets open and trade flowing	3	Gender	3	0	0
		LNOB	0	0	3
Monitor the food security situation	0	Gender	-	-	-
		LNOB	-	-	-

Source: RTE team analysis.

Lesson learned 10. Although some gender and leave no one behind specific briefs were developed, not all publications mainstreamed these concepts. The lack of guidelines for mainstreaming gender and leave no one behind approach in the development of KPDS was mitigated by the authors' own exposure to and uptake of these principles but has limited the degree of consistent comprehensive, and systematic application of criteria across FAO's key messages.

79. A few personnel perceived that the capacities of technical teams to target vulnerable groups could be improved. However, some other authors of knowledge products indicated that the tailoring of content and a better targeting of vulnerable communities requires skills and know-how usually coming from other specialists such as gender/LNOB and communication specialists. FAO did not have guidelines that could be used or adapted to support technical teams to mainstream gender and LNOB principles in COVID-19-related KPDS. Other organizations have developed guidelines to help mainstreaming gender in publications²⁵ that FAO could review and internalize.

3.5 Business continuity and development and dissemination of COVID-19 knowledge products and data services during the COVID-19 crisis

80. The evaluation assessed the extent to which the development and dissemination of KPDS were affected by the unfolding COVID-19 crisis. Lessons learned and good practices were derived primarily from consultations with FAO personnel.
81. FAO personnel pointed out the significant challenge, at first, to move into teleworking mode. However, personnel also recognized the overall swift adaptation that followed and a rather contained disruption for the development of KPDS. Very often the tireless efforts and effective support of the Digitalization and Informatics Division (CSI) were underlined.

Good practice 8. FAO personnel adapted swiftly to online collaboration and work processes including by testing and adopting new technologies and accelerating the digitization of the Organization.

82. Many personnel reported an increased use of different technologies and collaborative platforms such as OneDrive, Dropbox, Skype for Business, Zoom, Teams, WhatsApp and Trello. In order to circumvent the lack of physical meetings and to better cope with the increased number of knowledge products published, some teams embarked on further leveraging technologies to improve work processes. The EST communication team for example developed the Publication kiosk, an intranet website where technical personnel would access information to support the publication process in real time. The team also adopted Microsoft Planner, a collaborative tool to track how a project is evolving. They also turned the Publication Form on MS Forms to facilitate workflows. Another example was provided by the Joint FAO/WHO Centre (CJW) team and the European Commission for the Control of Foot-and-Mouth Disease (EUFMD) virtual learning center, which was used to organize innovative online global conferences, simulation exercises, virtual risk assessment missions and to support decentralized offices (e.g. southern Africa, RAP) to undertake regional delivery of virtual learning courses to increase programme delivery and engagement.
83. Online collaboration and dissemination of KPDS through webinars brought new skills and know-how to personnel that contributed to accelerate the digitization of FAO. The organization and delivery of webinars and online presentations were a source of “learning by doing” for personnel leading to devise good practices and lessons learned. Personnel highlighted for example the effectiveness of delivering webinars where government officials, NGO staff and other partners would present their work. This provides presenters the opportunity to raise the visibility of their activities and to exchange perspectives and good practices and for countries to inspire each other. Communication specialists from EST stressed that the dynamic behind the scenes was demanding and required some patience from the technical teams. Preparing online events implied frequently two to three dry runs. Considering that the demand for FAO to contribute to webinars grew

²⁵ For example the “[Gender Mainstreaming Guidelines](#)” created by the United Nations Educational, Scientific and Cultural Organization (UNESCO) Division for Gender Equality to support mainstreaming gender in UNESCO publications.

significantly in 2020, technical personnel also pointed out the need to select which events to support. In some cases, it was found to be required to engage in high-level/high-impact policy processes and meetings but de-prioritize academic conferences. Such experiences were found contributing to improving personnel's skills and capacities to work in a digital environment not only operationally and technically but also with a broader understanding of underlying opportunities and challenges.

84. The transition to an online working mode was sometimes perceived as an *"amazing cultural shift as FAO never supported teleworking in the past"* to this extent. However, personnel also insisted on the need to sustain and continue supporting this change through skills development and business intelligence to ensure that the most appropriate IT tools are adopted. Some also suggested that FAO needed to be better prepared with an infrastructure coping with an emergency mode, since some had to buy laptops to work from home while others faced connectivity issues. In the Central African Republic for example, which confronted a complete lockdown, FAO had to install generators for key personnel to ensure access to electricity and provide home office. Access to past KPDS as well as to relevant technical specialists at headquarters and in decentralized offices was not perceived an issue for personnel that were in FAO for some time. However, new personnel mentioned that FAO should pay more attention to knowledge management to facilitate access to institutional memory.

Bibliography

- Asia Pacific Foundation of Canada.** 2021. *COVID-19 Pandemic Implications on Agriculture and Food Consumption, Production and Trade in ASEAN Member States*. Vancouver, Canada. (also available at <https://www.asiapacific.ca/sites/default/files/publication-pdf/COVID-19%20Pandemic%20Implications%20on%20Agriculture%20and%20Food%20Consumption%2C%20Prod...pdf>)
- Bochtis, D., Benos, L., Lampridi, M., Marinoudi, V., Pearson, S. and Sørensen, C.G.** 2020. Agricultural Workforce Crisis in Light of the COVID-19 Pandemic. *Sustainability*, 12(19). (also available at <https://www.mdpi.com/2071-1050/12/19/8212>)
- CFS HLPE.** 2020. *Interim Issues Paper on the Impact of COVID-19 on Food Security and Nutrition (FSN)*. Rome. (also available at http://www.fao.org/fileadmin/templates/cfs/Docs1920/Chair/HLPE_English.pdf)
- Falkendal, T., Otto, C., Schewe, J., Jaegermeyr, J., Konar, M., Kummu, M., Watkins, B and Puma, M.J.** 2021. Grain export restrictions during COVID-19 risk food insecurity in many low- and middle-income countries. *Nature Food*, 2: 11–14. (also available at <https://www.nature.com/articles/s43016-020-00211-7>)
- FAO & ECLAC.** 2020. *Food systems and COVID-19 in Latin America and the Caribbean: Impact and risks in the labour market*. Santiago. (also available at <http://www.fao.org/3/ca9237en/CA9237EN.pdf>)
- FAO & ECLAC.** 2020. *Food systems and COVID-19 in Latin America and the Caribbean: Risks threatening international trade*. Bulletin 3. Santiago. (also available at <http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1276820/>)
- FAO.** 2019. *The Director-General's Medium Term Plan 2018-21 (reviewed) and Programme of Work and Budget 2020-21*. C 2019/3. Rome. (also available at http://www.diplomatie.be/oda/43722_PROGDESCR_PWB2020-2021.pdf)
- FAO.** 2020a. *Addressing the impacts of COVID-19 in food crises April–December 2020: FAO's component of the Global COVID-19 Humanitarian Response Plan*. Rome. (also available at <http://www.fao.org/3/ca8497en/CA8497EN.pdf>)
- FAO.** 2020b. *Boosting smallholder resilience for recovery: Protecting the most vulnerable, promoting economic recovery and enhancing risk management capacities*. Rome. (also available at http://www.fao.org/fileadmin/user_upload/foodcoalition/docs/BSR_RNE_Protecting_most_vulnerable.pdf)
- FAO.** 2020c. *Council. Hundred and Sixty-fourth Session. Rome, 8 – 12 June 2020. Further Adjustments to the Programme of Work and Budget 2020-21*. Rome. (also available at <http://www.fao.org/3/nd238en/nd238en.pdf>)
- FAO.** 2020d. *FAO COVID-19 Response and Recovery Programme – Data for decision-making: Ensuring quality data and analysis for effective policy support to food-systems and Zero Hunger*. Rome. (also available at <http://www.fao.org/3/cb0279en/cb0279en.pdf>)
- FAO.** 2020e. *Economic inclusion and social protection to reduce poverty: Pro-poor COVID-19 responses for an inclusive post-pandemic economic recovery*. Rome. (also available at <http://www.fao.org/3/cb0282en/cb0282en.pdf>)
- FAO.** 2020f. *FAO COVID-19 Response and Recovery Programme*. In *FAO* [online]. Rome. (available at <http://www.fao.org/partnerships/resource-partners/covid-19/en/>)
- FAO.** 2020g. *Farmers and agribusinesses at risk under COVID-19: What role for blended finance funds?* Rome. (also available at <http://www.fao.org/policy-support/tools-and-publications/resources-details/zh/c/1307963/>)

- FAO.** 2020h. *Food systems transformation: Building to transform during response and recovery*. Rome. (also available at <http://www.fao.org/publications/card/en/c/CB0281EN/>)
- FAO.** 2020i. *Global humanitarian response plan: Addressing the impacts of COVID-19 and safeguarding livelihoods in food-crisis contexts*. Rome. (also available at <http://www.fao.org/documents/card/en/c/cb0285en/>)
- FAO.** 2020j. *Preventing the next zoonotic pandemic: Strengthening and extending the One Health approach to avert animal-origin pandemics*. Rome. (also available at <http://www.fao.org/policy-support/tools-and-publications/resources-details/ru/c/1366602/>)
- FAO.** 2020k. *The State of Agricultural Commodity Markets 2020. Agricultural markets and sustainable development: Global value chains, smallholder farmers and digital innovations*. Rome. (also available at <http://www.fao.org/3/cb0665en/cb0665en.pdf>)
- FAO.** 2020l. *Trade and food safety standards: Facilitating and accelerating food and agricultural trade during COVID-19 and beyond*. Rome. (also available at <http://www.fao.org/documents/card/en/c/cb0299en/>)
- FAO.** 2020m. *Strengthening governments' capacity for enabling an economic and social recovery post-COVID-19 through investments in agri-food sectors*. Rome. (internal document)
- FAO.** 2021a. *Mid-Term Review Synthesis Report – 2020. Hundred and Thirtieth Session of the Programme Committee and Hundred and Eighty-fourth Session of the Finance Committee. PC 130/2 - FC 185/8*. Rome.
- FAO.** 2021b. *Agricultural trade and policy responses during the first wave of the COVID-19 pandemic in 2020*. Rome. (also available at <http://www.fao.org/3/cb5406en/cb5406en.pdf>)
- FAO.** 2021c. *Governance Document - FAO COVID-19 Umbrella Programme*. Rome. (internal document)
- FAO.** 2021d. *Policy responses to the COVID-19 crisis in the Near East and North Africa – keeping food and agriculture systems alive: A review based on the FAO Food and Agriculture Policy Decision Analysis (FAPDA) database*. Rome. (also available at <http://www.fao.org/3/cb3874en/cb3874en.pdf>)
- FAO.** 2021e. *Results of the Survey on Teleworking Experience in FAO during COVID-19 pandemic*. Rome. (internal document)
- FAO.** 2021f. *The impact of disasters and crises on agriculture and food security: 2021*. Rome. (also available at <http://www.fao.org/3/cb3673en/cb3673en.pdf>)
- FSIN and Global Network Against Food Crises.** 2021. *Global Report on Food Crises*. Rome. (also available at https://docs.wfp.org/api/documents/WFP-0000127343/download/?_ga=2.12870911.9729110.1633687203-1627983986.1612444048)
- Global Network Against Food Crises.** 2020. *Food Crises and COVID-19: Emerging evidence and implications. An analysis of acute food insecurity and agri-food systems during COVID-19 pandemic*. Technical note. Rome. (also available at http://www.fightfoodcrises.net/fileadmin/user_upload/fightfoodcrises/doc/GlobalNetwork_Technical_Note_Covid19_Food_Crises_Sept_2020.pdf)
- Hashem, N.M., González-Bulnes, A. and Rodríguez-Morales, A.J.** 2020. *Animal Welfare and Livestock Supply Chain Sustainability Under the COVID-19 Outbreak: An Overview*. *Front. Vet. Sci.*, 7:582528. (also available at <https://www.frontiersin.org/articles/10.3389/fvets.2020.582528/full>)
- ILO and FAO.** 2021. *Extending social protection to rural populations: Perspectives for a common FAO and ILO approach*. Geneva, Switzerland. (also available at https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---soc_sec/documents/publication/wcms_770159.pdf)

- ILO.** 2021a. *ILO Monitor: COVID-19 and the world of work*. Seventh edition. 25 January 2021. Geneva, Switzerland. (also available at https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_767028.pdf)
- ILO.** 2021b. *COVID-19 and its impact on working conditions in the meat processing sector*. ILO sectoral brief. Jan 2021. Geneva, Switzerland.
- IMF.** 2021. *World Economic Outlook Update*. January 2021. Washington, DC. (also available at <https://www.imf.org/en/Publications/WEO/Issues/2021/01/26/2021-world-economic-outlook-update>)
- Khitakhunov, A.** 2020. Agriculture in the Eurasian Economic Union: Analysis of trends and challenges. *Eurasian Research Journal*, 2(2); 37-53. (also available at https://erj.eurasian-research.org/shw_artcl-46.html)
- Markandya, A., Salcone, J., Hussain, S., Mueller, A. and Thambi, S.** 2021. Covid, the Environment and Food Systems: Contain, Cope and Rebuild Better. *Front. Environ. Sci.* 9:674432. (also available at <https://www.frontiersin.org/articles/10.3389/fenvs.2021.674432/full>)
- Mojeed, A.** 2020. Lockdown: How countries can support smallholder farmers – FAO. *Premium Times*, May 3, 2020. (also available at <https://www.premiumtimesng.com/news/more-news/391163-lockdown-how-countries-can-support-smallholder-farmers-fao.html>)
- OECD.** 2020a. *COVID-19 and the Food and Agriculture Sector: Issues and Policy Responses*. Paris. (also available at <https://www.oecd.org/coronavirus/policy-responses/covid-19-and-the-food-and-agriculture-sector-issues-and-policy-responses-a23f764b/>)
- OECD.** 2020b. *Development Co-operation Report 2020. Learning from Crises, Building Resilience*. Paris. (also available at https://www.oecd-ilibrary.org/development/development-co-operation-report-2020_f6d42aa5-en)
- OECD.** 2020c. *Global Outlook on Financing for Sustainable Development 2021*. Paris. (also available at <https://www.oecd.org/development/global-outlook-on-financing-for-sustainable-development-2021-e3c30a9a-en.htm>)
- OECD.** 2020d. *Six decades of ODA: insights and outlook in the COVID-19 crisis*. OECD Development Co-operation Profiles 2020. Paris. (also available at https://www.oecd-ilibrary.org/development/development-co-operation-profiles_5e331623-en)
- Salik, K.M. and Suleri, A.Q.** 2020. Managing food supply chain amid COVID-19: Insights from global efforts. *Think-Asia*, July 2020. (also available at <https://think-asia.org/handle/11540/12174>)
- Sánchez, M.V., Cicowiez, M. and Ortega, A.** 2021. Inversión pública productiva en la agricultura para la recuperación económica con bienestar rural: un análisis de escenarios prospectivos para México. *Economía del desarrollo agrícola de la FAO – Estudio técnico 11*. Rome, FAO. (also available at <https://www.fao.org/3/cb4562es/cb4562es.pdf>)
- Schmidhuber, J.** 2020. COVID-19: From a global health crisis to a global food crisis? *Food Outlook*, June 2020. Rome. (also available at <http://www.fao.org/3/ca9509en/covid.pdf>)
- Schmidhuber, J. and Bing, Q.** 2021a. Food import bills. *Food Outlook*, June 2021. Rome.
- Schmidhuber, J. and Bing, Q.** 2021b. Recent trends in food imports bills and export earnings: the COVID-19 challenge. *Food Outlook*, June 2021. Rome. (also available at http://www.fao.org/3/cb1993en/cb1993en_special_feature.pdf)
- Schmidhuber, J. and Bing, Q.** 2021c. Surging trade, record import bills and rising food prices: how the international food system kept a lid on a global health crisis. *Food Outlook*, June 2021. Rome. (also available at http://www.fao.org/3/cb4479en/cb4479en_special_feature.pdf)

- The Global COVID-19 Evaluation Coalition.** 2020. Lessons from Evaluations. Issue 1: Food Security. OECD, Paris. (also available at https://www.enterprise-development.org/wp-content/uploads/COVID19-Coalition_Lessons-from-Evaluation_Food-Security_FINAL.pdf)
- Torero, M.** 2020. *Food Security Dimensions of the COVID-19 Crisis: Scenario and Response*. FAO short brief. (also available at https://executiveboard.wfp.org/document_download/WFP-0000116741)
- UK Aid.** 2020. *Implications of COVID-19 on women informal workers*. London. (also available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/911533/Query-53-covid-and-women-informal-workers.pdf)
- UN.** 2020a. *A UN framework for the immediate socio-economic response to COVID-19*. April 2020. New York, United States of America. (also available at <https://unsdg.un.org/resources/un-framework-immediate-socio-economic-response-covid-19>)
- UN.** 2020b. *Policy Brief: The Impact of COVID-19 on Food Security and Nutrition*. June 2020. New York, United States of America. (also available at https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf)
- UN OCHA.** 2020. *Global Humanitarian Response Plan for COVID-19*. Geneva. (also available at <https://www.unocha.org/sites/unocha/files/Global-Humanitarian-Response-Plan-COVID-19.pdf>)
- UN OCHA.** 2021. *Global Humanitarian Response Plan COVID-19. Final Progress Report*. 22 February 2021. Geneva. (also available at https://www.unocha.org/sites/unocha/files/GHRP_ProgressReport_22FEB.pdf)
- UNSG.** 2020. *Letter from the Secretary-General to all the members of the G-20*. 23 March 2020. New York, United States of America. (also available at <https://www.un.org/sg/en/content/sg/note-correspondents/2020-03-24/note-correspondents-letter-the-secretary-general-g-20-members>)
- Workie, E., Mackolil, J., Nyika, J. and Ramadas, S.** 2020. Deciphering the impact of COVID-19 pandemic on food security, agriculture, and livelihoods: A review of the evidence from developing countries. *Current Research in Environmental Sustainability*, 2:100014. (also available at <https://www.sciencedirect.com/science/article/pii/S266604902030027X>)
- World Bank.** 2020. COVID-19 and food security. Update April 30, 2020.
- Zhuawu, C., Ali, S. and Enos-Edu, H.** 2020. COVID-19 and food supplies in the Commonwealth. *Commonwealth Trade Hot Topics*, 165. (also available at <https://thecommonwealth.org/sites/default/files/inline/THT%20165%20FINAL.pdf>)

Appendices

Appendix 1. People interviewed – knowledge products and data services component

Last name	First name	Institution/agency	Role
Abbassian	Abdolreza	FAO, EST	Senior Economist
Abdoulayi	Sara	FAO, RAF	Social Protection Officer
Abdurazakova	Dono	FAO, REU	Senior Gender and Social Protection Adviser
Aubert	Anne	FAO, OCCP	Information and Communication Officer
Bellu	Lorenzo Giovanni	FAO, ESA	Senior Economist
Benammour	Omar	FAO, ESP	Social Protection Officer
Brito	Claudia	FAO, RLC	Policy Officer
Cafiero	Carlo	FAO, ESS	Project Manager
Campora	Greta	FAO, ESP	Junior Social Protection Specialist
Cardenas	Araceli	FAO, EST	Communication Specialist
Di Bari	Viviana	FAO, ESP	Communication Consultant
Drechsler	Denis	FAO, EST	Project Manager
English	Alicia	USAID	Policy Officer
Fang	Cheng	FAO, REU	Economist
Farmer	Tina	FAO, DDCCS	Technical Editor
Fernandez	Gabriel	FAO, RAF	Social Protection Specialist
Franchi	Valentina	FAO, RNE	Gender Expert
Gautam	Madhur	World Bank	Lead Agriculture Economist
Greb	Friederike	WFP	Economist
Ishrat	Gadhok	FAO, EST	Economist
Jost	Christine	USAID	Senior Livestock Technical Advisor
Kelly	Siobhan	FAO, ESF	Agribusiness Officer
Klassen	Jared	Global Affairs Canada	Program Officer
Lapstun	Suzanne	FAO, OCCP	Forestry Publications and Communications Officer
Luketic	Olivera	FAO, ESP	Resource Partner Relations and Resource Mobilization Specialist
Maillet	Jenelle	Global Affairs Canada	
Mermigkas	Georgios	FAO, EST	Senior Economist
Mihara	Kae	FAO, RAP	Gender Officer
Okazoe	Naohito	Embassy of Japan in Italy	Alternate Permanent Representative to FAO, First Secretary
Park	Clara	FAO, RAF	Senior Gender Officer

Last name	First name	Institution/agency	Role
Patrone	Claudia	FAO, ESP	Social Protection and Anticipatory Action Consultant
Petschen	Majda	WTO, Agriculture and Commodities Division	Counsellor
Pound	Jonathan	FAO, EST	Economist
Pratt	Orry	FAO, SFE	Agricultural Officer
Qiao	Bing	FAO, EST	Programme Officer
Ramirez Goio	Mariela	FAO, RLC	Field Consultant and Technical support
Rashid	Adam	USAID	Senior M&E expert
Renique	Arniela	FAOPE	Rural Development and Social Protection Supporting Specialist
Rivera	Rodrigo	FAO, ESP	Economist
Rucci	Raffaella	FAO, OCD	Communication Consultant
Sanchez Cantillo	Marco	FAO, ESA	Deputy Director
Sellers	Mark	USAID	Data Analyst
Senahoun	Jean	FAO, RAF	Senior Economist
Snow	Michelle	USAID	Policy Partnership Officer
Sosa	Orlando	FAO, SFE	Agricultural Officer
Valls Bedeau	Jose	FAO, ESF	Policy Officer
Van Abel	Nicole	USAID	Water Resources Management
Vecchione	Ettore	FAO, EST	Digital Publishing and Web Specialist
Wright	Anne Stephanie	FAO, OCCP	Digital Publication Specialist
Yue	Qiushi	FAO, ESP	Programme Officer

Appendix 2. COVID-19 related knowledge products and data services included in the assessment

Key messages	Priority areas		Publishing data	
	Referred in PA Briefs	Assigned by RTE	Title of report or data service	Publishing date
Monitor the food security situation		PA2, PA7	The State of Food Security and Nutrition in the World 2020	13 July 2020
Maintain food supply chains alive	PA2, PA5	PA2, PA5, PA7	COVID-19 and the risk to food supply chains How to respond	29 March 2020
Ensure safe and sustainable food systems	PA5	PA5, PA7	How is COVID-19 affecting the fisheries and aquaculture food systems?	10 April 2020
Keep markets open and trade flowing	PA1, PA4, PA6	PA1, PA4, PA6	COVID-19 and smallholder producers' access to markets	15 April 2020
Keep markets open and trade flowing	PA4, PA5	PA4, PA5	Agri-food markets and trade policy in the time of COVID-19	02 April 2020
Ensure safe and sustainable food systems		PA6	Exposure of humans or animals to SARS-CoV-2 from wild livestock companion and aquatic animals	28 July 2020
Keep attention to vulnerable groups		PA3	Impact of COVID-19 on informal workers	07 April 2020
Ensure safe and sustainable food systems	PA4	PA4	COVID-19 Channels of transmission to food and agriculture	14 April 2020
Ensure safe and sustainable food systems	PA4, PA6, PA7	PA4, PA6, PA7	Food Safety in the time of COVID-19	14 April 2020
Keep attention to vulnerable groups	PA1, PA3, PA5	PA1, PA3, PA5	Social Protection and COVID-19 response in rural areas	08 April 2020
Ensure safe and sustainable food systems		PA7	How to feed the world in times of pandemics and climate change?	22 January 2021
Place food and agriculture at the center of economic recovery stimulus packages	PA2	PA2	COVID-19 global economic recession: Avoiding hunger must be at the centre of the economic stimulus	24 April 2020
Ensure safe and sustainable food systems		PA6	Guidelines to mitigate the impact of the COVID-19 pandemic on livestock production and animal health	26 May 2020
Monitor the food security situation	PA1, PA5	PA1, PA5	Anticipating the impacts of COVID-19 in humanitarian and food crisis contexts	04 April 2020
Ensure safe and sustainable food systems		PA7	COVID-19 and Food Safety Guidance for food businesses interim guidance	07 April 2020
Keep attention to vulnerable groups		PA3	Gendered impacts of COVID-19 and equitable policy responses in agriculture food security and nutrition	15 May 2020

Key messages	Priority areas		Publishing data	
	Referred in PA Briefs	Assigned by RTE	Title of report or data service	Publishing date
Keep attention to vulnerable groups		PA3	Migrant workers and the COVID-19 pandemic	07 April 2020
Keep attention to vulnerable groups		PA3	COVID-19 and indigenous peoples	09 August 2020
Keep attention to vulnerable groups		PA3, PA7	Mitigating the effects of the COVID-19 pandemic on food and nutrition of schoolchildren	07 April 2020
Ensure safe and sustainable food systems	PA1, PA5, PA6	PA1, PA5, PA6	Mitigating the impacts of COVID-19 on the livestock sector	23 April 2020
Ensure safe and sustainable food systems		PA5, PA7	The impact of COVID-19 on fisheries and aquaculture – A global assessment from the perspective of regional fishery bodies	27 May 2020
Maintain a healthy diet for good health		PA7	Maintaining a healthy diet during the COVID-19 pandemic	27 March 2020
		All	FAO COVID-19 Response and Recovery Programme	14 July 2020
Ensure safe and sustainable food systems		PA4, PA7	COVID-19 and Food Safety Guidance for competent authorities responsible for national food safety control systems	22 April 2020
Maintain food supply chains alive		PA5, PA7	Food supply chain under strain: What to do?	24 March 2020
		All	Novel Coronavirus (COVID-19) Portal	04 April 2020
Keep markets open and trade flowing		PA4	Agricultural Market Information System	
Keep markets open and trade flowing		PA4	AMIS Market Database	
Keep markets open and trade flowing		PA4	AMIS Policy Database	
Keep markets open and trade flowing		PA4	GIEWS - Global Information and Early Warning System	
Keep markets open and trade flowing		PA4	GIEWS Data and Tools	
Keep markets open and trade flowing		PA4	GIEWS Reports	
Keep markets open and trade flowing		PA4	Crop Calendars and COVID-19	
Keep markets open and trade flowing		PA4	Keeping food and agricultural systems alive - Analyses and solutions in a period of crises - COVID-19 Pandemic	
Keep markets open and trade flowing		PA4	Food and Agriculture Policy Decision Analysis	

Key messages	Priority areas		Publishing data	
	Referred in PA Briefs	Assigned by RTE	Title of report or data service	Publishing date
Keep markets open and trade flowing		PA4	FAPDA Tool	
Keep markets open and trade flowing		PA4	Comparing Crises: Great Lockdown versus Great Recession	27 April 2020
Keep markets open and trade flowing		PA4	Agricultural Trade & Policy Responses during the First Wave of the COVID-19 Pandemic in 2020	08 May 2021
Keep markets open and trade flowing		PA4	Food Outlook – Biannual Report on Global Food Markets	01 June 2020
Keep markets open and trade flowing		PA4	Food Price Index	
Ensure safe and sustainable food systems	PA7	PA7	Urban food systems and COVID-19	09 April 2020
Keep markets open and trade flowing	PA4	PA4	Measures for supporting wholesale food markets during COVID-19	15 June 2020
Maintain food supply chains alive	PA7	PA7	Adjusting business models to sustain agri-food enterprises during COVID-19	06 May 2020
Maintain food supply chains alive		PA7	Responding to the impact of the COVID-19 outbreak on food value chains through efficient logistics	04 April 2020
Monitor the food security situation	PA2	PA2	Simulating rising undernourishment during the COVID-19 pandemic economic downturn	05 May 2020
Maintain a healthy diet for good health		PA3, PA7	Food system policy priorities and programmatic actions for healthy diets in the context of COVID-19	28 May 2020
Keep markets open and trade flowing		PA4	Ample supplies to help shield food markets from the COVID-19 crisis	2 April 2020

Appendix 3. Evaluation matrix

Key question/sub-questions	Indicators	Sources of data	Methods of verification
KEQ 1: RELEVANCE: How did FAO ensure that its COVID-19 KPDS were relevant?			
1.1. What factors facilitated or hindered the degree of relevance of the COVID-19 KPDS across the “key messages”?	<ul style="list-style-type: none"> - Match between COVID-19 KPDS and the global, regional and sub-regional context - KPDS developed in response to a demand, a survey or an assessment - KPDS developed for different types of target users - References by informants as evidence 	<ul style="list-style-type: none"> - COVID-19 situation reports - KPDS - Minutes from meetings - Surveys and socio-economic assessments - Headquarters/regional office/sub-regional office personnel 	<ul style="list-style-type: none"> - Desk reviews - Semi-structured interviews
1.2. To what extent have the COVID-19 knowledge products and data services been timely?	<ul style="list-style-type: none"> - Dates of publication or launch of the KPDS - Level of access (downloads) or uptake (references) over time - References by informants as evidence 	<ul style="list-style-type: none"> - Policy briefs and databases - FAO website, external websites, social media platforms, and secondary resources - Headquarters/regional office/sub-regional office personnel 	<ul style="list-style-type: none"> - Desk reviews/AWS - Cybermetric analysis, Altmetric - Semi-structured interviews
1.3. What lessons learned and good practices derive from fostering increased relevance of the COVID-19 KPDS?	<ul style="list-style-type: none"> - References by informants as evidence - Evidence from past evaluations 	<ul style="list-style-type: none"> - Past evaluations of knowledge uptake - Headquarters/regional office/sub-regional office personnel 	<ul style="list-style-type: none"> - Evaluation reports - Semi-structured interviews - Expert judgement
KEQ 2: COHERENCE: How did FAO’s KPDS complemented and/or supported internal and external efforts to meet COVID-19 information needs?			
2.1 To what extent did FAO’s KPDS complement and support internal and external actors’ efforts to address COVID-19-related needs?	<ul style="list-style-type: none"> - PAs covered by the knowledge products and data services - Evidence of collaboration across technical teams/PAs and across headquarters and decentralized offices for the development of KPDS - Evidence of collaboration with key external actors for the development of KPDS - Evidence of relevant dissemination mechanisms - References to FAO’s KPDS in other resources (websites, publications) 	<ul style="list-style-type: none"> - Table of knowledge products covered per PA - Policy briefs and databases - Other FAO’s COVID-19-related publications (sample) - Disaggregated data per dissemination modality - Citation data from FAO and competitors - External websites and secondary resources - Headquarters/regional office/sub-regional office personnel - Key informants from other organizations 	<ul style="list-style-type: none"> - Desk reviews - Cybermetric analysis, Altmetric - Semi-structured interviews
2.2 What lessons learned and good practices can be derived?	<ul style="list-style-type: none"> - References by informants as evidence 	<ul style="list-style-type: none"> - Headquarters/regional office/sub-regional office personnel 	<ul style="list-style-type: none"> - Semi-structured interviews - Expert judgement

Key question/sub-questions	Indicators	Sources of data	Methods of verification
KEQ 3: CONTRIBUTION: To what extent the selected COVID-19 KPDS contributed to FAO's programmatic efforts?			
3.1. To what extent were COVID-19 KPDS influential?	<ul style="list-style-type: none"> - Number of hits and downloads - Number of references on third party websites and documentation - References to KPDS in key documents - References by informants - Evidence of use by different types of stakeholders (Member States, IFIs, donors, etc.) 	<ul style="list-style-type: none"> - FAO website - Websites, social media platforms, and secondary resources - Key publications - Action sheets and ProDocs (random sample) - Headquarters/regional office/sub-regional office personnel 	<ul style="list-style-type: none"> - Desk reviews/AWS - Cybermetric analysis, Altmetric- Semi-structured interviews
3.2. To what extent do counterfactuals indicate that FAO's KPDS made a difference?	<ul style="list-style-type: none"> - Number of references of other organizations' KPDS on websites and social media - References by FAO personnel and external key informants 	<ul style="list-style-type: none"> - Websites, social media platforms, and secondary resources - Headquarters/regional office/sub-regional office personnel - External informants 	<ul style="list-style-type: none"> - Cybermetric analysis - Semi-structured interviews
3.3. What are the promising/good practices and lessons learned?	<ul style="list-style-type: none"> - References by FAO personnel 	<ul style="list-style-type: none"> - Headquarters/regional office/sub-regional office personnel 	<ul style="list-style-type: none"> - Semi-structured interviews - Expert judgement
KEQ 4: INCLUSIVENESS: How did the COVID-19 KPDS ensure that the principle of LNOB was followed?			
4.1 To what extent have KPDS supported the LNOB principle, through advocating for the rights of and the inclusive targeting of women, minorities and marginalized groups?	<ul style="list-style-type: none"> - Number of knowledge products and data services focusing/conveying LNOB principles - Extent to which LNOB principles have been advocated in FAO's KPDS - References by informants 	<ul style="list-style-type: none"> - Review of KPDS (random sample) - Headquarters (KPDS authors or owners, ESP)/regional office/sub-regional office personnel 	<ul style="list-style-type: none"> - Desk reviews - Semi-structured interviews - Expert judgement
4.2 What are the lessons learned and good practices?	<ul style="list-style-type: none"> - References by informants 	<ul style="list-style-type: none"> - Headquarters/regional office/sub-regional office personnel 	<ul style="list-style-type: none"> - Semi-structured interviews
KEQ 5: BUSINESS CONTINUITY: How were the development and dissemination of COVID-19 KPDS affected by the unfolding COVID-19 crisis?			
5.1 To what extent was the production and dissemination processes of KPDS able to adapt and/or provide flexibility to cover the risks and needs posed by the COVID-19 pandemic?	<ul style="list-style-type: none"> - Level of accessibility of previous crisis-related KPDS - Evidence of use of online platforms - References by informants 	<ul style="list-style-type: none"> - Minutes from meetings - Webinars - Headquarters (KPDS authors or owners, CIO) decentralized offices personnel 	<ul style="list-style-type: none"> - Desk reviews - Semi-structured interviews
5.2 What are the good business continuity practices and lessons learned that enabled the COVID19 KPDS?	<ul style="list-style-type: none"> - References by informants 	<ul style="list-style-type: none"> - Headquarters (KPDS authors or owners, CIO) decentralized offices personnel 	<ul style="list-style-type: none"> - Semi-structured interviews

Appendix 4. Selected sample of COVID-19-related knowledge products and data services

Appendix Table 1. Key FAO messages with linkages to relevant PAs and knowledge products and data services

Key messages	Linkages with PAs Outcomes (as per theory of change)	Sample knowledge products and data services (bold: for in-depth analysis; other: part of macro analysis)	Target users
<i>Monitor the food security situation</i>	<p>PA1: Timely, rapid and targeted response by the humanitarian community and governments avert a deterioration of food security</p> <p>PA2: Evidence informs a cross spectrum of sub-national, national, regional and global responses</p> <p>PA5: Capacities and institutions to build resilience enhanced</p>	<ul style="list-style-type: none"> • The State of Food Security and Nutrition in the World 2020 • Anticipating the impacts of COVID-19 in humanitarian and food crisis contexts 	<ul style="list-style-type: none"> • Governments (policymakers, etc.) • Private sector (associations of merchants, traders, etc.) • Other (academia, research, media, general public)
<i>Maintain food supply chains alive</i>	<p>PA1: Food supply chain actors are not at risk of virus transmission</p> <p>PA5: Transformative economic recovery is supported</p> <p>PA7: Enhanced capacity of agrifood enterprises and value chain stakeholders</p>	<ul style="list-style-type: none"> • COVID-19 and the risk to food supply chains: How to respond? • Food supply chain under strain: What to do? • Adjusting business models to sustain agri-food enterprises during COVID-19 • Responding to the impact of the COVID-19 outbreak on food value chains through efficient logistics 	<ul style="list-style-type: none"> • Governments (policymakers, etc.) • Private sector (associations of merchants, traders, etc.) • Small farmers • Workers • United Nations
<i>Keep markets open and trade flowing</i>	<p>PA1: Functioning of local food markets, value chains and systems maintained</p> <p>PA4: Trade facilitated</p> <p>PA5: Transformative economic recovery is supported</p>	<ul style="list-style-type: none"> • Agri-food markets and trade policy in the time of COVID-19 • COVID-19 and smallholder producers' access to markets • AMIS; Crop Calendars and COVID-19; FAPDA [databases] • Comparing Crises: Great Lockdown versus Great Recession • Ample supplies to help shield food markets from the COVID-19 crisis • Agricultural Trade & Policy Responses during the First Wave of the COVID-19 Pandemic in 2020 • Measures for supporting wholesale food markets during COVID-19 • Food Outlook – Biannual Report on Global Food Markets • Food Price Index • GIEWS 	<ul style="list-style-type: none"> • Governments (policymakers, etc.) • Private sector (associations of merchants, traders, etc.) • Small farmers • United Nations

Key messages	Linkages with PAs Outcomes (as per theory of change)	Sample knowledge products and data services (bold: for in-depth analysis; other: part of macro analysis)	Target users
		<ul style="list-style-type: none"> Keeping food and agricultural systems alive - Analyses and solutions in a period of crises 	
<i>Prioritizing vulnerable groups</i>	PA1: The most vulnerable have access to food PA3: Women, children, informal workers, migrants and other underserved groups covered by social protection measures PA5: The most vulnerable are safeguarded in rural and urban settings	<ul style="list-style-type: none"> Impact of COVID-19 on informal workers Social protection and COVID-19 response in rural areas Gendered impacts of COVID-19 and equitable policy responses in agriculture food security and nutrition Migrant workers and the COVID-19 pandemic COVID-19 and indigenous peoples Mitigating the effects of the COVID-19 pandemic on food and nutrition of schoolchildren 	<ul style="list-style-type: none"> Governments (policymakers, etc.) Workers Other (schools)
<i>Maintain a healthy diet for a good health</i>	PA7: Strengthened capacity to enhance food safety and nutritional quality across food systems	<ul style="list-style-type: none"> Maintaining a healthy diet during the COVID-19 pandemic Food system policy priorities and programmatic actions for healthy diets in the context of COVID-19 	<ul style="list-style-type: none"> Governments (policymakers, etc.) Other (schools, general public)
<i>Placing food and agriculture at the center of the economic recovery</i>	PA2: Evidence informs a cross spectrum of sub-national, national, regional and global responses PA5: Transformative economic recovery is supported	<ul style="list-style-type: none"> COVID-19 global economic recession: Avoiding hunger must be at the center of the economic stimulus 	<ul style="list-style-type: none"> Governments (policymakers, etc.) Private sector (associations of merchants, traders, etc.)
<i>Ensuring safe and sustainable food systems</i>	PA1: Food supply chain actors are not at risk of virus transmission PA4: Trade facilitated PA5: Capacities and institutions to build resilience enhanced PA6: Extending One Health approach PA7: Increased adoption of technical and institutional innovations	<ul style="list-style-type: none"> COVID-19 channels of transmission to food and agriculture How is COVID-19 affecting the fisheries and aquaculture food systems? Exposure of humans or animals to SARS-CoV-2 from wild livestock companion and aquatic animals Food Safety in the time of COVID-19 How to feed the world in times of pandemics and climate change? Guidelines to mitigate the impact of the COVID-19 pandemic on livestock production and animal health COVID-19 and food safety guidance for food businesses interim guidance 	<ul style="list-style-type: none"> Governments (policymakers, etc.) Private sector (associations of merchants, traders, etc.) Workers Other (academia, research, municipalities, media, general public)

Key messages	Linkages with PAs Outcomes (as per theory of change)	Sample knowledge products and data services (bold: for in-depth analysis; other: part of macro analysis)	Target users
		<ul style="list-style-type: none"> • Mitigating the impacts of COVID-19 on the livestock sector • The impact of COVID-19 on fisheries and aquaculture – A global assessment from the perspective of regional fishery bodies • COVID-19 and food safety guidance for competent authorities responsible for national food safety control systems • Urban food systems and COVID-19 	

Source: Elaborated by the RTE team based on discussions with FAO staff and literature review.

Appendix 5. Survey questionnaires templates

Appendix Table 2. Survey questionnaire for authors of knowledge products or personnel in charge of data services

Please respond to this short questionnaire with detailed information whenever possible. This will be important for the evaluation to follow-up with interviews or to collect evidence that will inform the assessment.				
How did the knowledge product originate?	Mark "X" to all that apply	Please provide additional details (e.g. email addresses, names, title of resources, etc.)		
		Name(s) of originating FAO's department/unit(s) or decentralized office(s), or external organization(s)	Name(s) and email address(es) of requestor to be consulted by the evaluation	Title and/or link to relevant reports or any evidence to be consulted by the evaluation
Requested or suggested by headquarters management or personnel				
Requested or suggested by a decentralized office personnel				
Requested or suggested by the government				
Requested or suggested by the private sector				
Requested or suggested by development partner(s)				
Induced by a socio-economic assessment, or survey				
Induced by another study or report				
Other (please specify):				
How was the knowledge product developed?	Mark "X" to all that apply	Please provide additional details (e.g. email addresses, contact names, title of resources, etc.)		
		Name(s) of contributing FAO's department/unit(s) or decentralized office(s), or external organization(s)	Name(s) and email address(es) of contributors to be consulted by the evaluation	Title and/or link to relevant reports or any evidence to be consulted by the evaluation
Developed by myself and/or my team				
Developed with personnel from other headquarters divisions				
Decentralized offices personnel were involved in the development				
Government officials were involved in the development				

Appendix 5. Survey questionnaires templates

Private sector actors were involved in the development				
Development partner(s) were involved in the development				
Target users were involved in the development				
Other actors involved (please specify):				
How was the knowledge product disseminated?	Mark "X" to all that apply	Please provide additional details (e.g. email addresses, contact names)		
		Name(s) of FAO's department/unit(s) or decentralized office(s), or external organization(s) involved	Name(s) and email address(es) of disseminators to be consulted by the evaluation	
Through standard dissemination channels of OCC				
Disseminated by the originator department/unit				
Disseminated by decentralized offices				
Disseminated by other headquarters departments				
Disseminated by non-FAO actors (please specify which ones):				
Which dissemination channels were used?	Mark "X" to all that apply	Please provide additional details (e.g. date of event(s), contact names, etc.)		
		Name of dissemination channel and date if known (e.g. website, mailing list, newsletter, title of op-ed, etc.)	URL or link to any evidence	
Website				
Email				
Twitter				
Facebook				
Conference/launch event				
Webinar				
Press release				
Other (please specify):				
How was the knowledge product used?	Mark "X" to all that apply	Please provide additional details (e.g. email addresses, contact names, title of resources, etc.)		
		Name(s) of FAO's department/unit(s) or decentralized office(s), or external organization(s) using the product	Name(s) and email address(es) of key users to be consulted by the evaluation	Title and/or link to relevant reports or any evidence on use to be consulted by the evaluation

Informed other policy briefs, technical papers, or reports				
Informed FAO's Action Sheet(s) developed in response to COVID-19				
Informed the formulation of project(s) developed in response to COVID-19				
Guided the work of headquarters management or technical personnel related to COVID-19				
Guided the work of decentralized offices personnel related to COVID-19				
Input into COVID-19 national response strategies				
Input into private sectors responses to COVID-19				
Input into development partners' responses to COVID-19				
Quoted by media				
Other evidence of use (please specify):				
Efficacy of business continuity measures taken by FAO	Mark "X" if you agree	Please provide relevant details (e.g. any enabling and constraining factors)		
Business continuity measures were effective to ensure access to relevant knowledge products and/or data services developed in response to previous crises				
Business continuity measures facilitated appropriate data collection (e.g. remotely/online) for the development of this COVID-19 related knowledge product or data service				
Business continuity measures allowed appropriate collaboration (e.g. remotely/online) in the development of this COVID-19 related knowledge product or data service				

Appendix 5. Survey questionnaires templates

Business continuity measures allowed appropriate dissemination (e.g. remotely/online) of this COVID-19 knowledge product or data service		
Business continuity measures supported appropriate uptake (e.g. remotely/online) of this COVID-19 knowledge product or data service		
<p>OPEN QUESTIONS:</p> <ul style="list-style-type: none"> • Please describe how the knowledge product has considered equity issues such as inclusive targeting of women, minorities and marginalized groups. • What good practices can you highlight from the development and dissemination of COVID-19-related KPDS? • What are the main lessons learned from the development and dissemination of KPDS during the COVID-19 pandemic? • Do you have any final comment or suggestion for improving KPDS development and dissemination processes, including appropriate mainstreaming of equity issues? 		

Appendix Table 3. Survey questionnaire for end users of knowledge products and data services

Intro:

FAO is evaluating how its knowledge products (publications, databases etc.) produced in response to the COVID-19 crisis have been useful. The questionnaire is anonymous. It should take less than 2 minutes to complete the survey.

What is the category that corresponds the best to your profile?

Government/policymaking, academia, civil society/NGO

Media/journalists

Private sector

International/regional organizations

General public

FAO personnel

Other

What is your geographical area of work (you may pick several)?

Global, Africa, Asia and the Pacific, etc.

To what extent do you agree with the following statements?

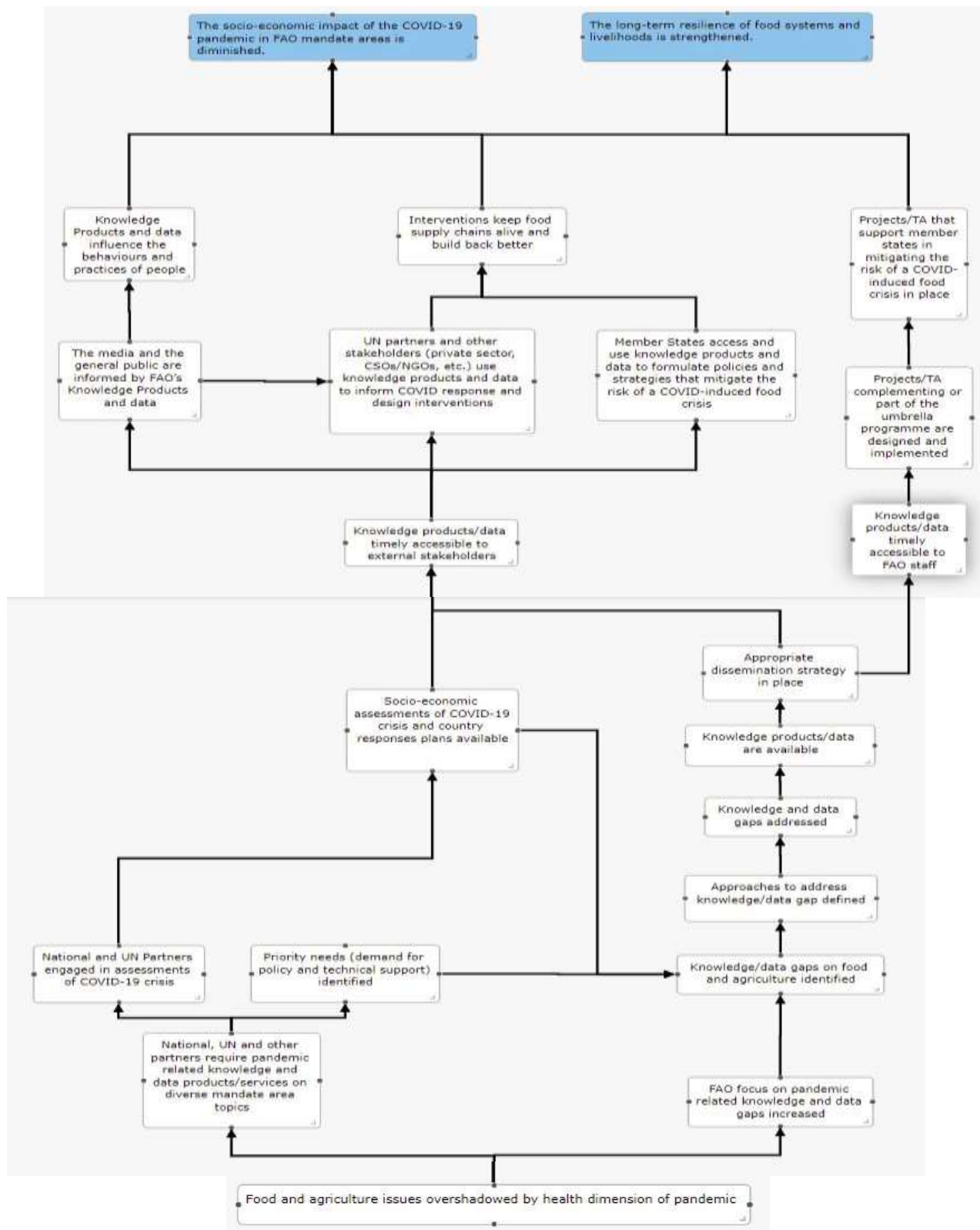
	Strongly agree	Agree	Moderately agree	Moderately disagree	Disagree	Strongly disagree	Do not know or not applicable
FAO's COVID-19 KPDS were relevant and have addressed your needs							
FAO's COVID-19 KPDS were timely							
FAO's COVID-19 KPDS have complemented publications or data services from other organizations (no overlap)							
The thematic scope of FAO's COVID-19 KPDS has been adequate and has offered a right balance between the breadth and depth of the technical coverage of subjects							
Government/policymaking							
You have gained useful information from FAO's COVID-19 KPDS							
FAO's COVID-19 KPDS have contributed to policy dialogue							
FAO's COVID-19 KPDS have informed the formulation of programmes or project(s) developed							

	Strongly agree	Agree	Moderately agree	Moderately disagree	Disagree	Strongly disagree	Do not know or not applicable
in response to the pandemic							
FAO's COVID-19 KPDS influenced or were used to inform national response policies or strategies							
Academia							
You have gained useful information from FAO's COVID-19 KPDS							
FAO's COVID-19 KPDS have informed lectures or courses							
FAO's COVID-19 KPDS have informed research and academic papers							
FAO's COVID-19 KPDS have contributed to trigger new collaborations with academia, public institutions or the private sector							
Civil society/NGO							
You have gained useful information from FAO's COVID-19 KPDS							
FAO's COVID-19 KPDS have informed dialogues with communities							
FAO's COVID-19 KPDS have informed initiatives or new projects contributing to respond to the pandemic							
FAO's COVID-19 KPDS have contributed to trigger new collaborations with communities, other NGOs/civil society organizations, public institutions or the private sector							
Media/journalists							
You have gained useful information							

	Strongly agree	Agree	Moderately agree	Moderately disagree	Disagree	Strongly disagree	Do not know or not applicable
from FAO's COVID-19 KPDS							
FAO's COVID-19 KPDS were used in press articles or through media channels							
Food security and safety guidance contained in FAO's COVID-19 KPDS was conveyed to the public							
FAO's COVID-19 KPDS were easily accessible							
Private sector							
You have gained useful information from FAO's COVID-19 KPDS							
FAO's COVID-19 KPDS have contributed to inform price or market decisions							
FAO's COVID-19 KPDS have contributed to inform or direct investment decisions							
FAO's COVID-19 KPDS influenced or were used to mitigate the effects of the pandemic							
International/regional organizations							
You have gained useful information from FAO's COVID-19 KPDS							
FAO's COVID-19 KPDS have informed your organization's policy or technical work							
FAO's COVID-19 KPDS have contributed to strengthen or to establish partnerships							
FAO's COVID-19 KPDS have informed							

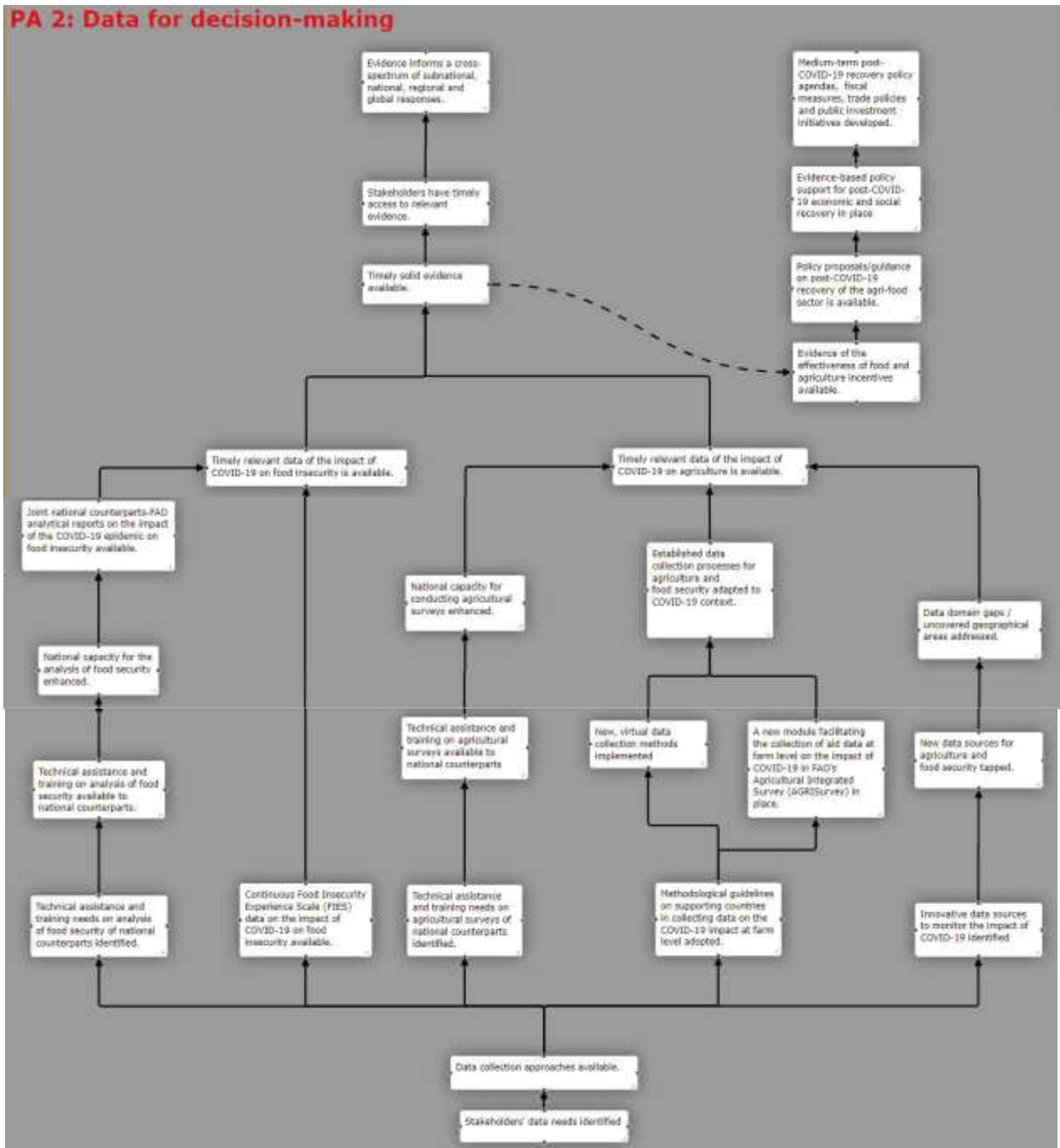
	Strongly agree	Agree	Moderately agree	Moderately disagree	Disagree	Strongly disagree	Do not know or not applicable
the formulation of project(s) developed in response to the pandemic							
General public							
You have gained useful information from FAO's COVID-19 KPDS							
FAO's COVID-19 KPDS have contributed to influencing your beliefs and behaviours in response to the crisis							
FAO's COVID-19 KPDS have contributed to mitigate the effects of the crisis for you							
FAO staff							
You have gained useful information from FAO's COVID-19 KPDS							
FAO's COVID-19 KPDS have contributed to policy dialogue							
FAO's COVID-19 KPDS have informed the formulation of project(s) developed in response to the pandemic							
FAO's COVID-19 KPDS influenced or were used to inform national response policies or strategies							
OPEN QUESTIONS: <ul style="list-style-type: none"> • [for external users] How can FAO be more effective/useful in providing you with information related to the pandemic? • [for FAO personnel only] How can FAO be more effective/useful in providing external partners and stakeholders with information related to the pandemic? 							

Appendix 6. Theory of change of FAO knowledge products and data services



Note: Reconstructed by the RTE.

Appendix 7. Theory of change of Priority Area 2



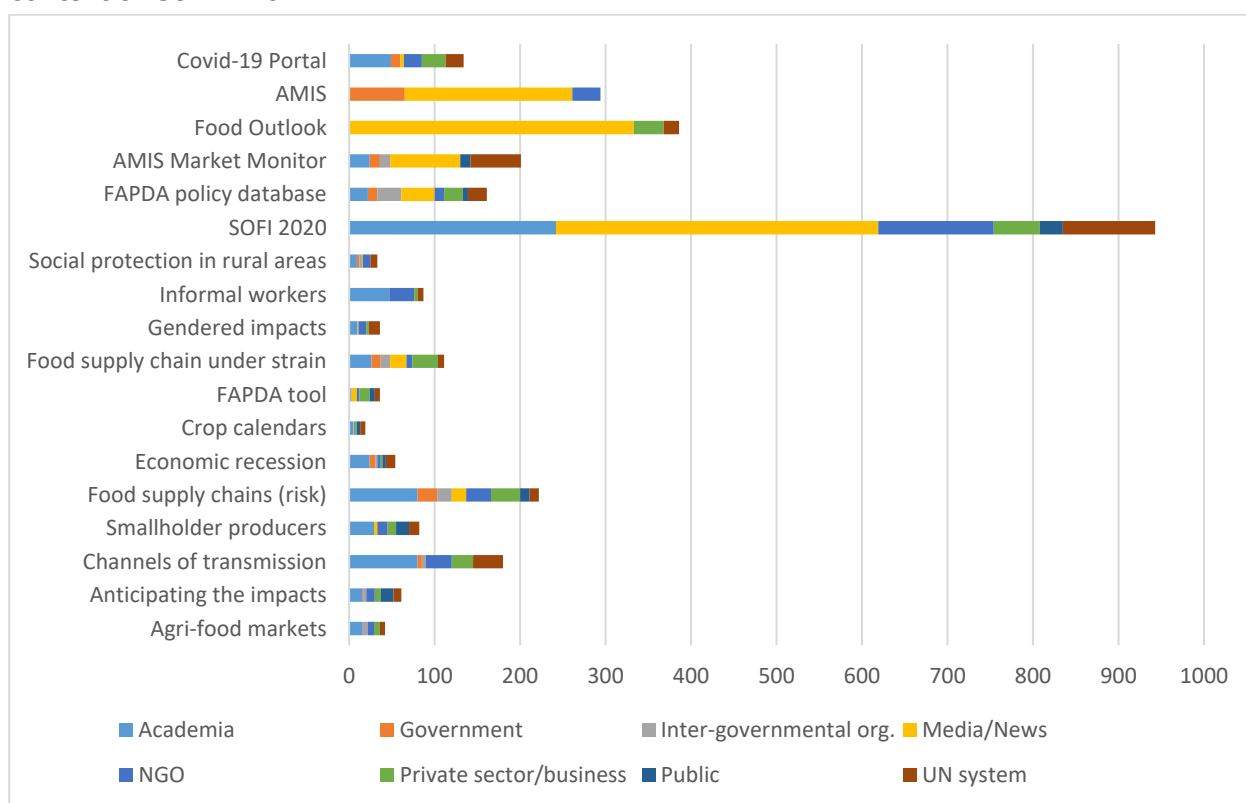
Note: Reconstructed by the RTE.

Appendix 8. Uptake of monitoring data

Uptake footprint of knowledge products and data services

The RTE conducted a Cybermetric analysis to explore the extent of KPDS uptake. The Cybermetric analysis showed that FAO knowledge products attracted attention online in the form of web pages mentioning or citing them. When considering the RTE's sample of 14 COVID-19-related KPDS, the number of web pages mentioning or citing them varied considerably, from 19 to 943 (Appendix Figure 1).²⁶ Webpages citing these resources almost always discussed them in a policy-relevant context, without giving clear evidence of policy changes due to them. This suggests that these FAO knowledge products acted primarily through influencing the overall discussion about the issues covered and by affecting the knowledge base of the decision makers, but this influence was rarely acknowledged. For example, SOFI 2020 generated significant policy-relevant discussions but had limited citations on government websites.

Appendix Figure 1. Estimated total number of webpages citing the named FAO product in the context of COVID-19

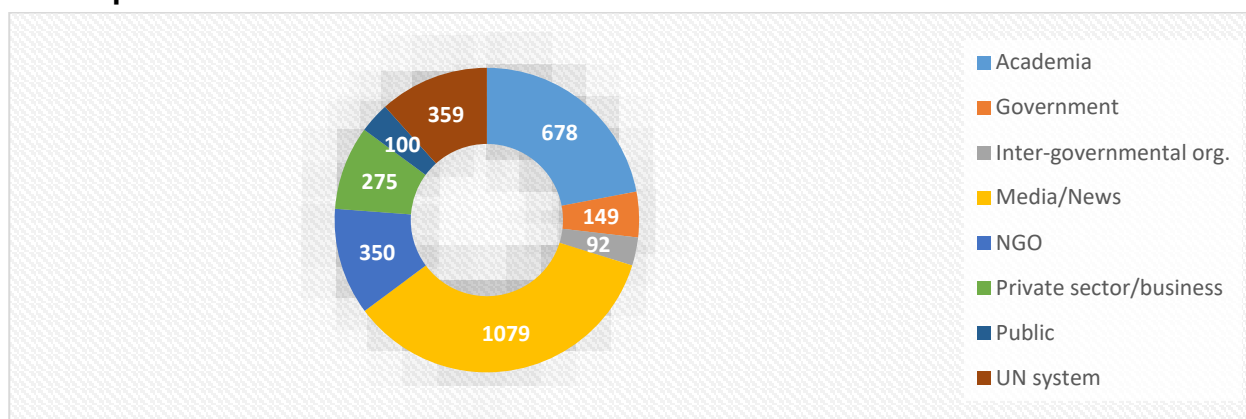


Source: Cybermetric analysis.

The level of uptake for the RTE's selected 14 KPDS varied according to the types of users. News and media outlets originated the highest number of webpages (1 079) citing one of the 14 knowledge products, followed by academia (678 webpages) and UN organizations (359). Fewer mentions were found from intergovernmental organizations (IGOs) websites and the general public (Appendix Figure 2).

²⁶ The numbers are likely underestimates because the products could be cited indirectly or in ways not captured by the web queries.

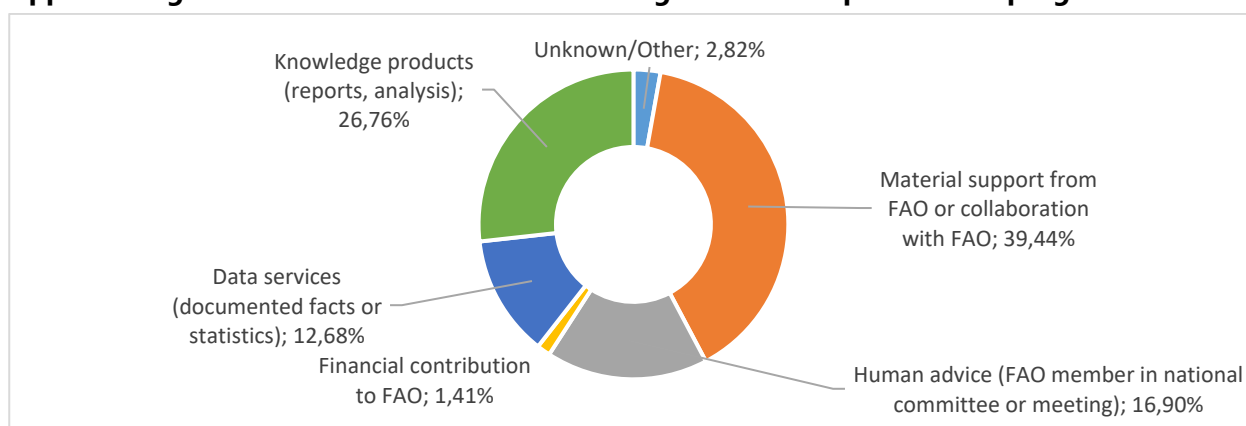
Appendix Figure 2. Estimated total number of webpages per category of user citing the selected 14 FAO products in the context of COVID-19



Source: Cybermetric analysis.

The Cybermetric analysis suggested that 3 445 out of 34 154 government web pages mentioning FAO and COVID-19 would give possible evidence of FAO influence on policy.²⁷ The most common type of FAO “influence” was in the form of a joint collaboration, usually in the host country (Appendix Figure 3). Such collaboration varied from a small-scale project to distribute seeds in a region to larger scale and longer-term initiatives. FAO also contributed to national meetings and committees, bringing expertise to help local policy and programmes. FAO knowledge products were also influential, originating close to 27 percent of the sources of reference to FAO, and facts and data were also sometimes used as evidence underpinning the need for an initiative.

Appendix Figure 3. Source of FAO’s influence on governments’ policies and programmes



Source: Cybermetric analysis (manual assessment of 71 government web pages).

When considering the larger RTE sample of 52 knowledge products, the key messages that generated the highest number of “Policy mentions” according to Altmetric were about “*Ensuring safe and sustainable food systems*” and “*Monitor the food security situation*”, owing largely to SOFI 2020, followed by “*Prioritizing vulnerable groups*”. AMIS and the presentation on “*COVID-19 and the risk to food supply chains: How to respond?*” were the most cited KPDS on government websites.

Uptake of FAO’s key messages and KPDS also varied according to the types of target users:

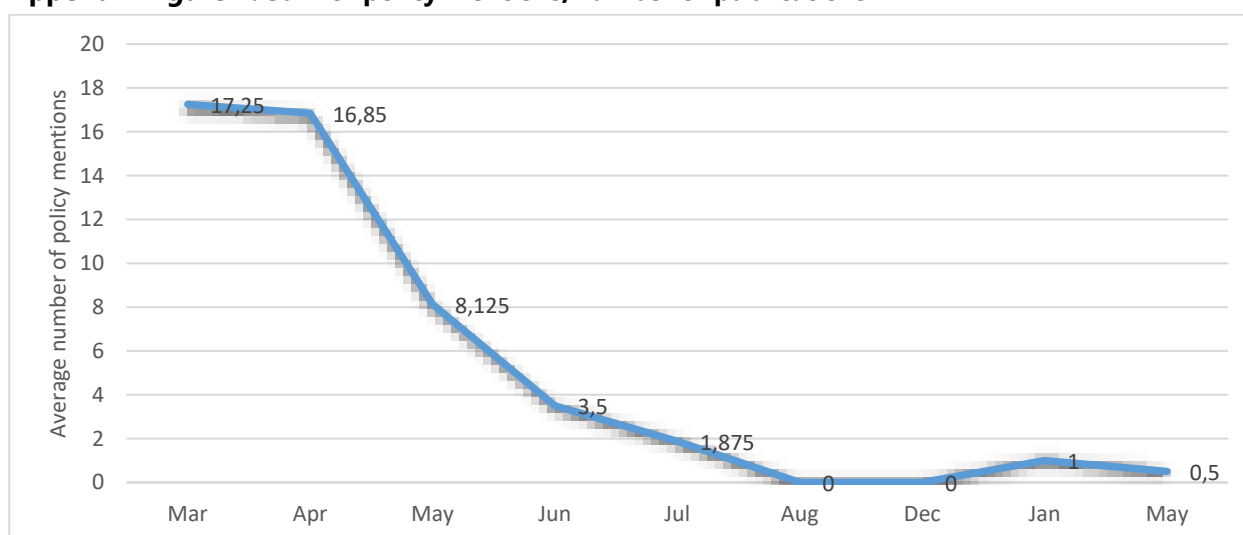
²⁷ The Cybermetric analysis conducted a manual content analysis of a random sample of 704 documents from 34 154 government websites that mentioned FAO and COVID-19 to help identify how FAO has helped governments respond to the pandemic. These webpages typically did not name a specific FAO knowledge product but may have alluded to them indirectly or mentioned facts derived from them. The study found 71 website documents out of 704 that may have influenced COVID-19-related policy, suggesting that 3 445 of the original 34 154 government web pages would give possible evidence of FAO influence on policy.

- i. UN organizations: When leaving SOFI 2020 aside, the key messages that were the most frequently taken up on UN websites were "*Prioritizing vulnerable groups*" followed by "*Ensuring safe and sustainable food systems*". After SOFI 2020, the *AMIS Market Monitor* and the policy brief on "*COVID-19 channels of transmission to food and agriculture*" were the most cited resources by UN organizations.
- ii. Private sector: After SOFI 2020, the *Food Outlook* from June 2020, and the presentation on "*COVID-19 and the risk to food supply chains: How to respond?*" were the most cited resources on private sector and on business websites.
- iii. Academia: "*Ensuring safe and sustainable food systems*" was the most covered key message by academia. After SOFI 2020, the most cited resources on academic websites were the presentation on "*COVID-19 and the risk to food supply chains: How to respond?*" and the policy brief on "*COVID-19 Channels of transmission to food and agriculture*".

Dissemination effectiveness

Correlation analysis showed various levels and types of connections between KPDS, dissemination channels and uptake. There was a positive but rather low correlation between the number of mentions of KPDS on news and media outlets and the number of policy uptakes. Although this does not infer causality, correlation was higher between news mentions and private sector uptake. Altmetric data showed that the key message that gathered the highest number of "News mentions" was "*Keep markets open and trade flowing*". The correlation was also positive between "Twitter mentions" and "Policy mentions" and even stronger between the number of references on UN websites and number of "Policy mentions". There was a high level of correlation also between "Policy mentions" and academic websites. Academic websites have referred to knowledge products that were also influential in policy settings. The strongest type of relationship that was identified regards the timeliness of the knowledge products. "Policy mentions" were strictly correlated with time (Appendix Figure 4).

Appendix Figure 4. Sum of policy mentions/number of publications

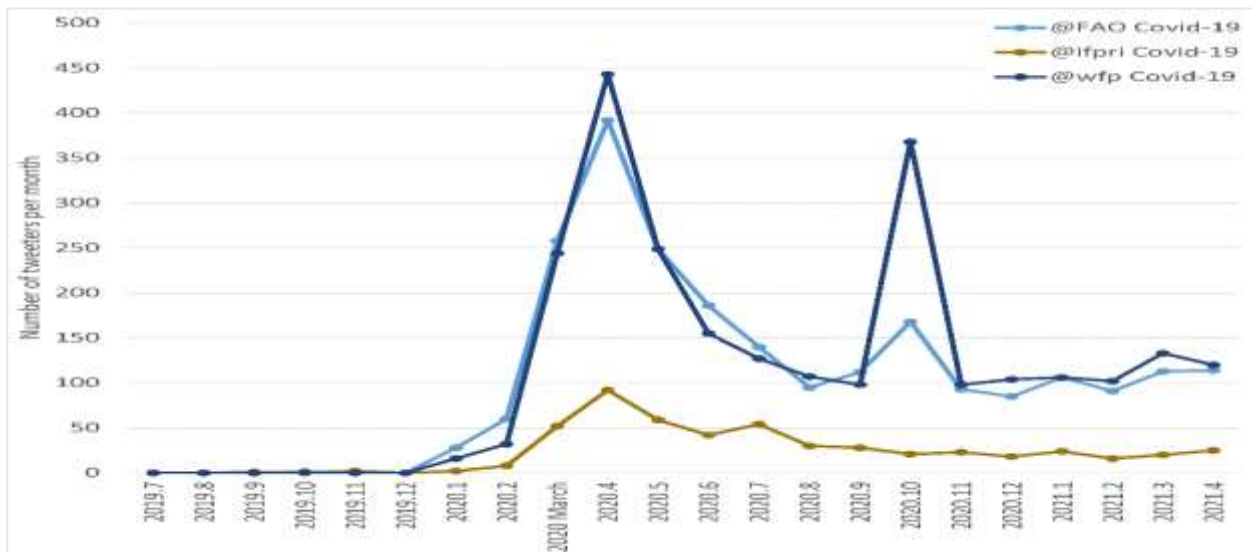


Source: RTE team analysis, Altmetric data.

Visibility comparison

The assessment of Twitter attention for FAO compared to a range of other large organisations suggested the extent to which FAO's knowledge products and data services made a difference. FAO had substantially more online attention than the International Food Policy Research Institute (IFPRI) throughout the pandemic but generated a similar level of attention to WFP (Appendix Figure 5). It had slightly more attention for most months until September 2020, with WFP tending to have more attention afterwards. The October 2020 WFP spike is due to its Nobel Prize.

Appendix Figure 5. Number of tweeters mentioning the Twitter handle of FAO, IFPRI and WFP, together with a COVID-19 term



Source: Cybermetric analysis.

Note: COVID-19 related terms: COVID-19, COVID19, pandemic, coronavirus, corona.

Data services (e.g. FAPDA, GIEWS, AMIS) reported an increased number of visitors to the website and databases during the period reviewed. This brought persistently higher visibility to these services. For example, the number of website visitors to AMIS tripled during the period March-April 2020 before slightly going down afterwards but remained the double compared to before the crisis. Similarly, the number of subscribers to the AMIS newsletter increased significantly faster after the outbreak of COVID-19 and remained higher than before the crisis.

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