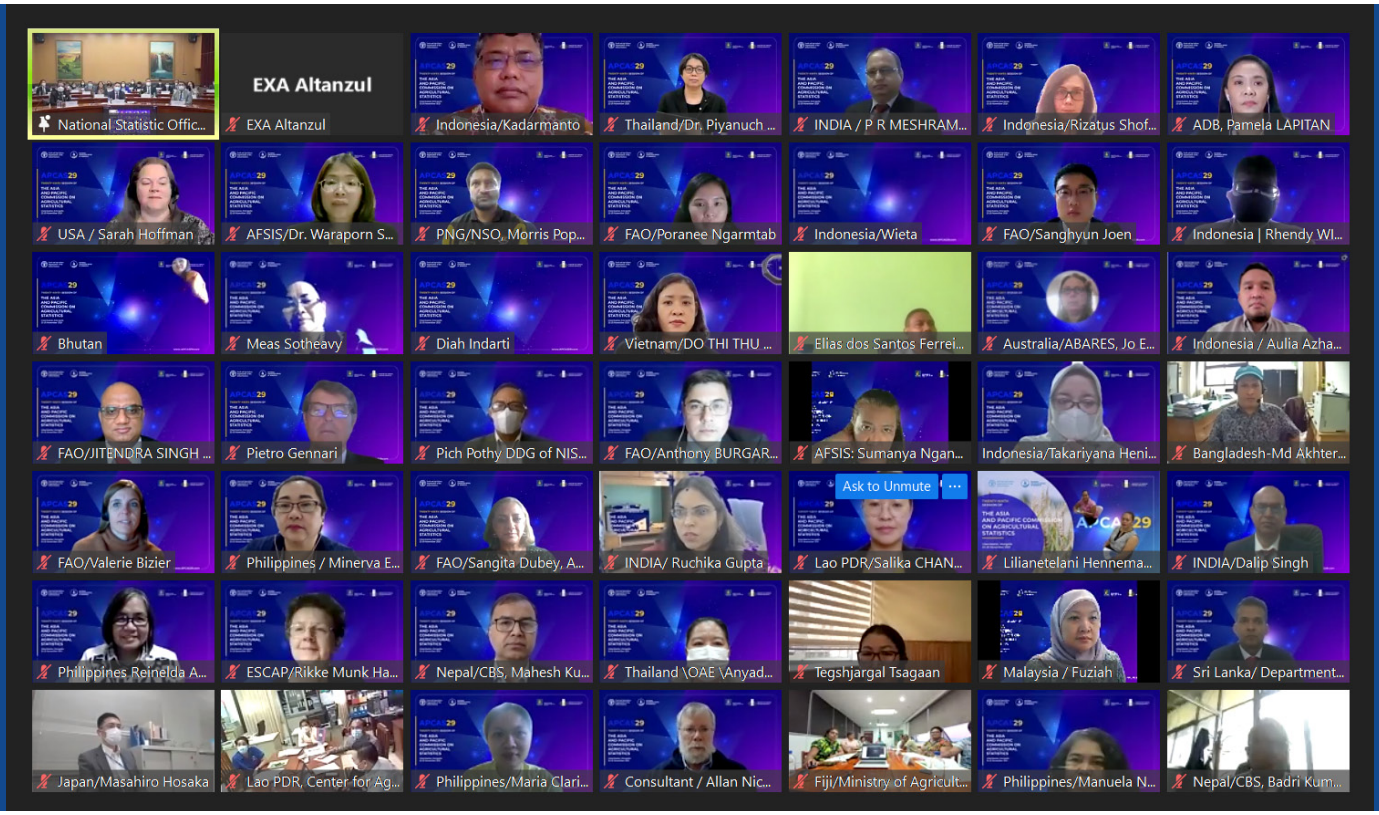
Food and Agriculture Organization of the United Nations

Report of the Twenty-ninth Session of the ASIA AND PACIFIC COMMISSION ON AGRICULTURAL STATISTICS

22–25 November 2021
Ulaanbaatar, Mongolia



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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AFSIS	ASEAN Food Security Information System
AGRIS	Agricultural Integrated Survey
AIT	Asian Institute of Technology
APCAS	Asia and Pacific Commission on Agricultural Statistics
AQUASTAT	FAO's global information system on water resources and agricultural water management
ASEAN	Association of Southeast Asian Nations
BPS	Badan Pusat Statistik (Statistics Indonesia)
CAPI	Computer assisted personal interviewing
COVID-19	coronavirus disease 2019
EO data	Earth observation data
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	FAO's corporate statistical database
FIES	Food Insecurity Experience Scale
GIS	Geographical information system
GPS	Global positioning system
IFAD	International Fund for Agricultural Development
L/LMCS	Least- and lower-middle-income countries
MOOC	massive open online course
NSO	National Statistics Office
RAP	Regional Office for Asia and the Pacific
RS	Remote sensing
SAE	Small area estimation
SAM	Spectral angle mapper
SDG	Sustainable Development Goal
SPC	Pacific Community
TCP	Technical Cooperation Programme
USDA	United States Department of Agriculture
WCA 2020	World Programme for the Census of Agriculture 2020

Summary of recommendations of the Twenty-ninth Session of Asia and Pacific Commission on Agricultural Statistics (APCAS29)

Agenda item 3: FAO activities in food and agriculture statistics in Asia and the Pacific, and follow-up to recommendations from the Twenty-eighth Session (APCAS28)

The Commission recommended that FAO:

- improve coordination and collaboration with development partners in supporting countries;
- continue support to integrate agricultural statistics and SDGs into national statistical systems;
- further invest in massive open online courses (MOOC) and regional normative work; and
- provide methodological guidelines for collection of agricultural production data in the context of small island developing states (SIDS), including use of remote sensing, earth observation, GIS measurement, and administrative data.

To improve response rates to FAO questionnaires and questionnaire completion rates, **the Commission recommended** that FAO:[1]

- facilitate improved and timely transmission of information requested in the FAO questionnaires through its regional, sub-regional, and country off ices; and
- better focus questionnaires to the appropriate focal person/department/agency/ ministry.

The Commission recommended that FAO:

- support countries in implementing farm-based surveys and use of appropriate data-collection methods and tools to compile nationally representative data and indicators, including SDG indicators;
- provide technical assistance to measure food losses at the national level; and
- provide focused assistance to Pacific Island Countries on SDG reporting.

Agenda item 4: Impact of COVID-19, and adaptations of statistical operations

The Commission recommended countries consider using virtual learning and remote data-collection methods (CAWI, CATI, mail) in agricultural censuses and surveys.

The Commission recommended that FAO provide guidance to countries for FIES data collection before and after implementation of the survey.

[1] Recommend is used in the sense of to advise someone to do something or to take action. Resource (re-) allocation may be required.

Agenda item 5: Challenges and methodological development for collecting SDG indicators in Asia and Pacific

The Commission recommended that FAO:

- provide technical support to Member Nations in the preparation of their Voluntary National Reviews for assessing progress towards the SDG targets and interpreting the associated results;
- develop tools and methods to integrate alternative data sources to disaggregate SDG indicators;
- provide technical assistance to Member Nations for the production of SDG indicators disaggregated by relevant dimensions;
- continue to provide technical assistance to countries in anonymizing and publishing microdata;
- continue delivery of technical assistance to Pacific stakeholders via partnerships between international and regional partners, such as SPC;
- conduct further research on the collection and processing of data on food consumption away from home; and
- provide technical assistance for building capacity to:
    - simplify and adapt AGRIS questionnaires based on country needs and circumstances;
    - adopt CAPI methods for data collection; and
    - compile SDG indicators from AGRIS.

Agenda item 6: The 50 x 2030 Initiative and statistical innovation in agricultural statistics

The Commission recommended that FAO:

- support countries in adopting and scaling up innovative and cost-effective methodologies for agricultural surveys, including technology use;
- improve clarity over the onboarding processes for countries joining the 50 x 2030 Initiative and provide supporting materials (standardized reporting tools, templates, definitions, etc.);
- show understanding and flexibility, especially regarding the current world economic context and challenges posed by the COVID-19 pandemic and specific countries' budgeting rules; and
- support countries in the design of a CAPI system, sampling design and the compilation of SDG indicators for the implementation of AGRIS.

Agenda item 7: Use of earth observation (EO) data for producing agricultural statistics

The Commission recommended that FAO:

- provide countries with technical assistance to use EO data in production of environmental and agricultural statistics and to transfer tools and knowledge.

Agenda item 8: Enhancing fishery, aquaculture and forestry data - achievements and challenges

The Commission recommended that FAO:

- coordinate efforts with development partners to support countries in the improvement of fisheries and aquaculture statistics;
- support countries to adopt sound data collection methods according to international standards and improve the collection and production of data on small-scale fisheries and inland fisheries; and
- improve the methodology to estimate the volume of aquaculture production by species.

Introduction

1. APCAS is a statutory body of the FAO. APCAS brings together senior statistics officials from FAO Member Nations of the Asia and the Pacific region who are responsible for the production and dissemination of agricultural statistics in their respective countries. They review the developments in their agricultural statistics system since the last session and exchange ideas with experts from FAO and other organizations on the state of food and agricultural statistics in the region. FAO uses this occasion to inform the Member Nations about its activities during the preceding biennium, particularly in the Asia and the Pacific region.

2. The prominent themes on the Agenda of the Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics (APCAS29) were the impact of COVID-19 and adaptations of statistical operations; the challenges and methodological development for collecting SDG indicators in Asia and the Pacific; the 50 x 2030 Initiative and statistical innovation in agricultural statistics; use of EO data for producing agricultural statistics; and enhancing fishery, aquaculture and forestry data.

3. The Government of Mongolia hosted APCAS29, convened virtually by FAO in Ulaanbaatar, Mongolia from 22 to 25 November 2021. A total of 209 participants attended the session, including 149 delegates from 25 APCAS Member Nations, and observers from seven countries and eight organizations. Appendix G contains the complete list of participants.

Opening session

4. Mr Zandanshatar Gombojav, Chairperson of the Parliament of Mongolia, welcomed all participants to the virtual meeting and expressed gratitude to FAO and the APCAS Secretariat for their collaborations in the successful organization of the session. Mr Gombojav stressed the importance of achieving the Sustainable Development Goals (SDGs), which are line with the Government of Mongolia's targets to transform the agricultural sector into one that is sustainable, adaptable to climate change, highly productive, resilient to risks and innovative.

5. Mr Batdavaa Batmunkh, Chairperson of the National Statistics Office of Mongolia, highlighted the importance of agricultural data to better understand and target policies to protect against increasing threats to the sector, including the growing number of livestock and the impacts of desertification. Mr Batmunkh acknowledged the pressing need among national statistics offices for new methods and technologies, such as remote sensing (RS) and big data.

6. On behalf of the outgoing APCAS Chairperson, Mr Kadarmanto of Statistics Indonesia - Badan Pusat Statistik (BPS) - acknowledged the significant improvements made to agricultural statistics in the region and the impact APCAS has had on the host country and the region. He expressed his appreciation to the National Statistics Office of Mongolia for serving as host, and his confidence that the Twenty-ninth Session would be a success.

7. On behalf of the FAO Regional Office for Asia and the Pacific, Mr Vinod Ahuja, FAO Representative to Mongolia, thanked the Government of Mongolia for hosting APCAS29. He noted the impact of the COVID-19 global pandemic on statistics work and highlighted the role of better data and technology as a means for governments to provide real-time information in a timely and effective manner.

8. Mr Pietro Gennari, FAO Chief Statistician, addressed the Commission and thanked the Government of Mongolia for hosting this session. He noted the need for the region to scale up efforts to collect data and use it effectively to increase reporting and monitoring of progress towards the SDGs in order to achieve them.

9. Mr Mendsaikhan Zagdjav, Minister for Food, Agriculture and Light Industry of Mongolia, delivered the opening speech to the Commission. He welcomed delegates to the first-ever virtual APCAS Session. He recognized that the APCAS Session is an important international forum for sharing experiences on innovative approaches to the production of data required to shape policy and decision-making. This is especially relevant for substantive topics such as the environment, livestock, crops, forestry, fishery, hunting, and food security.

10. Ms Sangita Dubey, APCAS Secretary and FAO Regional Statistician for Asia and the Pacific, thanked the Government of Mongolia for its dedicated work in making the organization of this event successful. She also thanked officers of FAO and Member Nations for their assistance in formulating the agenda, preparing papers, and supporting the organization of APCAS29.

11. Appendix D provides all speeches delivered in the opening session.

Election of officers and adoption of the agenda
(Item 2 of the Agenda)

12. On behalf of the outgoing Chairperson, Mr Kadarmanto, BPS-Statistics Indonesia, presided over the election of the Chair and Vice-Chair. Mongolia was unanimously elected Chair of APCAS29, represented by Mr Batdavaa Batmunkh, Chairman of the National Statistics Office of Mongolia, and

Mr Ganzorig Bulgankhuu, Director of the International Cooperation Division in the Policy and Planning Department, Ministry of Food, Agriculture and Light Industry of Mongolia. Nepal was elected Vice-Chair, represented by Mr Hem Raj Regmi, Deputy Director-General of the Central Bureau of Statistics of Nepal.

13. The Commission established a Drafting Committee, chaired by Mr Tobden Tobden (Bhutan) with Mr Yalalt Ganbat (Mongolia), Mr Mahesh Kumar Subedi (Nepal), and Ms Sarah Hoffman (United States) as members.

14. The Commission adopted the Agenda and Timetable (Appendix B and C, respectively). Appendix A provides a list of documents, and Appendix E provides a list of Member Nations of the Commission as of November 2021.

FAO's activities in food and agriculture statistics in Asia and the Pacific, and follow-up to recommendations from APCAS28

(Item 3 of the Agenda, Chaired by Ms Minerva Eloisa Esquivias, Philippines)

15. The APCAS Secretary and FAO Regional Statistician for Asia and the Pacific, Ms Sangita Dubey, and the FAO Sub-regional Statistician for the Pacific Islands, Ms Rasmiyya Aliyeva, introduced APCAS/21/3.1, "Implementation of the Recommendations of the Twenty-eighth APCAS Session," and provided a brief description of the main activities undertaken since APCAS28. These activities closely aligned with the recommendations of APCAS28 in providing: technical assistance on the SDG indicators under FAO custodianship; the use of cost-effective technologies, such as computer assisted personal interviewing; strengthening collaborations within FAO and with development partners to more efficiently support countries; expanding the use of remote learning through massive open online courses (MOOC); and strengthening partnerships in the Pacific to develop the statistical capacities of its Small Island Developing States (SIDS). Ms Dubey pointed out that the APCAS recommendations play a critical role in shaping FAO's statistics work in the region.

The Commission **recommended** that FAO:

- improve coordination and collaboration with development partners in supporting countries;
- continue support to integrate agricultural statistics and SDGs into national statistical systems;
- further invest in massive open online courses (MOOC) and regional normative work; and
- provide methodological guidelines for collection of agricultural production data in the context of Small Island Developing States, including use of remote sensing, earth observation, GIS measurement and administrative data.

16. In the second presentation, Ms Veronica Boero and Ms Valerie Bizier of FAO introduced APCAS/21/3.2, "Response rates to FAO questionnaires." The presentation reported levels and trends in response rates to FAO questionnaires, particularly on producer prices, production, government expenditures in agriculture, land use, fertilizers, pesticides use, fishery and forestry questionnaires. The presenters highlighted that despite notable exceptions and improvements some sub-regions have not reached a 40 percent response rate.

The Commission **encouraged**[1] countries to engage in discussions with national focal points of the FAO questionnaire to identify reasons for the lack of, low, and slow responses and to help coordinate within their national statistical systems.

The Commission **recommended** that FAO:

- facilitate improved and timely transmission of information requested in the FAO questionnaire through its regional, sub-regional, and country offices; and
- better focus questionnaires to the appropriate focal points, departments, agencies or ministries.

17. Mr Dorian Navarro of FAO presented APCAS/21/3.3, "Progress of the RAP region in reporting the SDG indicators under FAO custodianship." The presentation compared availability of data in the last five years and the average reporting rate in 2021 for Asia and the Pacific countries and the world for the 21 SDG indicators under FAO custodianship. He showed that the current status and the growth trend since 2017 of reporting rates in Asia mirrors the global reporting rate. However, Oceania (excluding Australia and New Zealand) lags behind. For agricultural farm-based indicators (2.3.1, 2.3.2, 2.4.1, 5.a.1), the food loss indicator (12.3.1.a) and the sustainability of fish stocks indicator (14.4.1), few to no countries in the region are currently reporting data. FAO can support countries to address these gaps and report their indicators.

The Commission **noted**[2] the need for FAO to continue its efforts in data collection and SDG monitoring in the region so that the average country-reporting rate will increase. The Commission **noted** that FAO needs to enable countries to more effectively monitor their progress towards SDG targets related to food security, sustainable agriculture, and the sustainable use of natural resources.

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[1] Encouraged is used in the sense of to persuade, to make someone more likely to do something/to take action, or to make something more likely to happen, where resources permit.

[2] Noted is used in the sense of to give one's attention to something by discussing it or making a written record of it. No further action is required.

The Commission **recommended** that FAO:

- support countries in implementing farm-based surveys and using appropriate data collection methods and tools to compile nationally representative data and SDG indicators;
- provide technical assistance to measure food losses at the national level; and
- provide focused assistance to Pacific Island Countries on SDG reporting.

Impact of COVID-19 and adaptations of statistical operations
(Item 4 of the Agenda, Chaired by Mr Hem Raj Regmi, Nepal)

18. Mr Jairo Castano of FAO presented APCAS/21/4.1, "Impact of COVID-19 on agricultural censuses in Asia Pacific," in which he described how COVID-19 has caused the postponement or delay of agricultural censuses in Asia (25 percent and 21 percent, respectively) and the Pacific (21 percent and 14 percent, respectively, with an additional 14 percent suspending activities). This can increase costs as fixed costs continue even with delays and other COVID-19-related expenses. It can also decrease the quality of data collected, and add the risk of inadequate funding when the census is conducted. There have been many lessons learned, but essentially, COVID-19 has been a wake-up call to diversify training and census data-collection methods.

The Commission **encouraged** countries to refer to the FAO publication "Global review of agricultural census methodologies and results (FAO, 2020)," and **noted** that this (census) publication compares country census practices and is a useful reference material for census planning.

The Commission **recommended** countries consider using virtual learning and remote data collection methods, such as computer assisted web interviewing (CAWI), computer assisted telephone interviewing (CATI), and mail-out-mail-back questionnaires in agricultural censuses and surveys.

19. Mr Abdul Sattar of FAO presented APCAS/21/4.2, "Methodological adaptations and strategies for remote collection of FIES," in which he shared that CATI proved to be the most common alternative to face-to-face data collection. He indicated CATI has its own challenges, particularly for correctly selecting respondents and obtaining valid information. He described strategies for minimizing potential bias with remote data collection.

The Commission **encouraged** countries to:

- consider the broader use of FIES in different contexts, such as measuring food insecurity in emergencies, conflicts, crises and pandemic situations;
- plan remote surveys that include the FIES module carefully, in order to avoid any potential bias from the data collection mode; and

- ensure appropriate cultural and linguistic adaption when planning surveys with the FIES module.

The Commission **recommended** that FAO provide guidance to countries for FIES data collection before and after implementation of the survey.

20. Mr Hem Raj Regmi of Nepal chaired a panel on country experiences in which Ms Saininana Kirisitiana (Fiji), Mr Dalip Singh (India), and Ms Salika Chanthalavong (Lao People's Democratic Republic (Lao PDR)) shared their accounts of conducting agricultural censuses and surveys during the COVID-19 global pandemic. They described how their countries' statistical systems adopted new methodologies, such as telework, adjusted timeframes, and the use of CAPI platforms. Examples included the contribution of the ADB-FAO CAPI MOOC course in assisting Fiji in CAPI implementation and fieldwork, and online training and technical assistance to Lao PDR on sampling for its agriculture census.

Challenges and methodological development for collecting SDG indicators in Asia and the Pacific

(Item 5 of the Agenda, Chaired by Mr Batdavaa Batmunkh, Mongolia)

21. Mr Pietro Gennari of FAO presented APCAS/21/5.1, "Measuring progress toward SDG targets," in which he noted that monitoring both the current distance and the progress made towards the SDG targets is essential to understand if a country is on track to achieve the 2030 Agenda. He said that measuring the progress of SDGs with different approaches and tools has led to inconsistent results and uncertainty among users. The presentation highlighted the need to frame progress in two parts: assessing the current status with the latest available data, and assessing the future status in view of whether the SDG targets will be reached by 2030.

The Commission **encouraged** countries to:

- monitor both the current distance and the progress made towards the SDG targets to understand if a country is on track to achieve the 2030 Agenda;
- compute the normalized distance to an SDG target to measure distance to the target;
- compare both actual and required growth to assess progress, and the growth required to reach the target in 2030 (using a geometric growth model); and
- avoid aggregating indicators by target or goal, and avoid computing composite indexes of progress using such aggregations.

The Commission **recommended** that FAO provide technical support to Member Nations in the production of their Voluntary National Reviews for assessing progress towards the SDG targets and interpreting the associated results.

22. Ms Aida Clara Khalil of FAO presented APCAS/21/5.3, "Guidelines on data disaggregation for SDG indicators using survey data." The presentation underlined the need for more disaggregated data to fulfil pledges by Member Nations to leave no one behind. FAO has developed methodological and practical guidance for production of direct and indirect disaggregated estimates of SDG indicators. These guidelines provide tools to assess the accuracy of estimates and inform strategies for data integration, as approximately one-third of the global SDG indicators can be computed using survey data.

The Commission **encouraged** countries to:

- engage with national policy-makers to identify disaggregation dimensions of the SDG indicators to be prioritized and planned at the survey design stage; and
- adopt an appropriate sampling design technique with sufficient sampling units for every sub-population for which disaggregated data must be produced. Or, use other indirect estimation techniques, such as small area estimation (SAE), in the analysis stage to integrate survey data with additional data sources such as census data, administrative registers and geospatial databases.

The Commission **recommended** that FAO:

- develop tools and methods to integrate alternative data sources to disaggregate SDG indicators; and
- provide technical assistance to Member Nations for the production of SDG indicators disaggregated by relevant dimensions.

23. Ms Valerie Bizier of FAO presented APCAS/21/5.2, "Accelerating FAO support on SDG monitoring (Regional Roadmap and Toolkit)." The presentation detailed the tool developed by FAO for SDG monitoring in Asia and the Pacific. The roadmap was developed with the objectives of strengthening the capacity of FAO decentralized teams and UN country teams to mainstream statistics and SDG monitoring support in UN country-level programming, and to scale up country-level technical collaborations. The presentation elaborated on the outline of the report and each of its six priority areas.

The Commission **welcomed**[3] FAO's roadmap to accelerate support to countries on SDG reporting in Asia and the Pacific and appreciated the toolkit of resources, tools and products to help them build their capacities on SDG monitoring.

The Commission **noted** the need for increased investment in statistical production and capacity development to meet reporting commitments under the 2030 Sustainable Development Goals.

[3] Welcomed is used in the sense of to gladly receive.

The Commission **noted** that FAO stood ready to provide technical assistance to Member Nations to:

- produce SDG indicators, and their disaggregation by relevant dimensions; and
- accelerate the production and use of SDG indicators at the national level that have not been considered in the roadmap for Asia and the Pacific.

24. Mr Michael Sharp of the Pacific Community presented APCAS/21/5.4, "SDG 2.1 indicators in the Pacific." Mr Sharp acknowledged the scope of joint work between countries, FAO and the Pacific Community (SPC) in addressing data gaps for compiling SDG indicators 2.1.1 (Prevalence of undernourishment) and 2.1.2 (Prevalence of moderate or severe food insecurity based on the Food Insecurity Experience Scale [FIES]). On SDG indicator 2.1.1, he detailed the success of countries in compiling the indicator based on household surveys. On SDG indicator 2.1.2, he said that the FIES module was included in censuses and surveys in the Pacific subregion, and that the Pacific Statistics Methods Board adopted the inclusion of FIES as a core module in forthcoming household income and expenditure surveys.

The Commission **noted**:

- the use of the FIES module, with appropriate recall periods, for both SDG monitoring and to better capture impacts of short-term shocks on food security, such as those associated with the COVID-19 pandemic;
- the need for continued investment in innovation, such as mobile-phone surveys and development of administrative data systems, to fill data gaps and complement survey data; and
- the use of FIES at the individual level in order to disaggregate food security experiences by factors such as gender, age, disability, education and labour.

The Commission **encouraged** countries to anonymize and publish microdata and facilitate their access and use for disaggregated policy-oriented research, for example, to identify populations that are vulnerable to hunger.

The Commission **recommended** that FAO:

- continue to provide technical assistance to countries anonymizing and publishing microdata;
- continue delivery of technical assistance to Pacific stakeholders through partnerships between international and regional partners, such as SPC; and
- conduct further research on the collection and processing of data on food consumption away from home.

25. Mr Kadarmanto of Indonesia presented APCAS/21/5.5, "Computation of farm-based SDG indicators: Indonesia's experience in conducting Agricultural Integrated Surveys." There is a need, he said, for an agricultural integrated survey

to meet the data requirements for the calculation of the SDGs for agriculture and other key agricultural subsector statistics. These include statistics for crops, livestock, forestry, fishery, forestry, and agricultural prices and services. Mr Kadarmanto shared Indonesia's experience in piloting the AGRIS methodology and recounted the lessons learned on budgeting, questionnaire design, technology use and the impact of COVID-19.

The Commission **recommended** that FAO provide technical assistance to countries for capacity building to:

- simplify and adapt AGRIS questionnaires based on country needs and circumstances;
- adopt CAPI methods for data collection; and
- compile farm-based SDG indicators from AGRIS.

The 50 x 2030 Initiative and statistical innovation in agricultural statistics
(Item 6 of the Agenda, Chaired by Ms Sarah Hoffman, USA)

26. Ms Chiara Brunelli of FAO presented APCAS/21/6.1, "Implementation of the 50 x 2030 Initiative in Asia Pacific." She highlighted the goals of the 50 x 2030 Initiative: to build partnerships to close data gaps in agricultural statistics; to improve country capacity to produce, analyse, interpret and apply data to policies and decisions in the agricultural sector, and to provide infrastructure to build evidence-based policies for rural development and food security. The Initiative brings together development partners from FAO, the World Bank and the IFAD to work in close collaboration with partner countries.

The Commission **noted** that the goals of the 50 x 2030 Initiative are to:

- build partnerships to close the data gap in agricultural statistics;
- improve country capacity to produce, analyse, interpret and apply data to policies and decisions in the agricultural sector;
- provide infrastructure to build evidence-based policies for rural development and food security; and
- empower low-income and lower middle-income countries to build sustainable and strong agricultural data systems.

The Commission **noted** that the 50 x 2030 Initiative is working in Cambodia, Indonesia, Nepal, and Bhutan in partnerships between national governments, development partners and donors, and opportunities exist for more countries to join in 2022.

The Commission **noted** that the implementation of the 50 x 2030 Initiative requires country ownership and high-level national commitment. Governments must ensure a progressive technical and financial takeover of the survey programme, make human resources available for activity implementation, and improve the visibility, governance, and planning of agricultural statistics.

The Commission **invited**[4] countries to:

- develop an integrated system for agricultural statistics through effective governance, strategic planning, integrated surveys, and master sample frames; and
- use available agricultural statistics for investment and sectorial plans, policy design and monitoring.

The Commission **recommended** that FAO support countries in adopting and scaling up innovative and cost-effective methodologies for agricultural surveys, including technology use.

27. Ms Carola Fabi of FAO presented APCAS/21/6.2, "Data Lab@FAO: a new approach to fill data gaps." She highlighted the data products of the FAO Data Lab that utilize new technologies and methodologies to capture and analyse non-official, unstructured and big data. These products provide near-real-time insights and were applied during the COVID-19 pandemic to monitor food prices and disruptions in the food value chain due to COVID-19 containment restrictions. Other FAO Data Lab use cases included support to the Hand-in-Hand Initiative, to fill FAOSTAT data gaps and replace estimates with data, to inform early warning systems, to inform SDG indicator 12.3.1.a (the Global Food Loss Index), and to enable a quantitative analysis of policy documents.

The Commission **noted** that FAO launched the Data Lab to:

- support the Hand-in-Hand Initiative (HIHI) through detailed and recent data in 43 priority countries;
- develop text-mining tools to extract and analyse policy documents;
- promote the use of non-official and unstructured data in domains and geographical areas where little official data is available; and
- develop geospatial tools and tagging systems at the sub-national level.

The Commission **encouraged** countries to:

- engage with new data-science methods and non-conventional data sources for agriculture statistics;
- pursue an open data and transparent approach; and
- publish all data online, whether in a structured form (databases, tables) or unstructured form (documents and reports) to improve access, increase utilization and reduce respondent burden.

28. Mr Pich Pothy, National Institute of Statistics of Cambodia, presented APCAS/21/6.3, "Implementation of AGRIS in Cambodia," with support from Mr Benjamin Lamberet, FAO international consultant. The presentation outlined the experiences of Cambodia in implementing the AGRIS methodology and

[4] Invite is used in the sense of to politely suggest.

lessons learned from the 2019 and 2020 Cambodia Inter-Censal Agriculture Surveys. Challenges exist in using CAPI in data collection when there are limited capacities of field staff and poor IT infrastructure, particularly in rural areas, and the long country onboarding process for the 50 x 2030 Initiative due to the current administrative process.

The Commission **recommended** that FAO:

- improve clarity over the onboarding process for countries joining the 50 x 2030 Initiative and provide supporting materials, such as standardized reporting tools, templates and definitions; and
- understand and show flexibility in countries' onboarding, especially given the current world economic context and specific countries' budgeting rules.

29. Ms Sarah Hoffman (USA) chaired a country experiences panel comprising Cambodia (Mr Pich Pothy), Indonesia (Mr Kadir), and Nepal (Mr Mahesh K Subedi). The panelists shared their experiences implementing the AGRISurvey and the onboarding processes of the 50 x 2030 Initiative in their respective countries. Each said there is a need for: adaptation of survey instruments to local contexts; simplification of questionnaires to reduce total interview time; increase in gadget literacy and internet connectivity to support a strong CAPI system in data collection; skills development in sampling design to ensure reliable estimates for small domains; and capacity building for the calculation of national and SDG indicators for subpopulation groups.

The Commission **recommended** that FAO support countries in the design of a CAPI system, sampling design and the compilation of SDG indicators for the implementation of AGRIS.

Use of earth observation data for producing agricultural statistics
(Item 7 of the Agenda, Chaired by Mr Sreenivas T.R., India)

30. Mr Lorenzo DeSimone of FAO presented APCAS/21/7.1, "Using earth observation for producing agricultural statistics," in which he shared experiences using earth observation (EO) data for official agricultural statistics by national statistics offices in Senegal, Uganda, Afghanistan, and Lesotho. The main barriers to the use of EO data are the complexity of image processing, the low availability and quality of in situ data, and the low transferability of models across crops, seasons, and areas. FAO's work in response to these challenges involves delivering full solutions for automatic pre-processing of EO data through Sen2Agri or EOSTAT CropMapper, the development and availability of customized training programmes, and the facilitation of and access to ground truth data under the AGRIS programme.

The Commission **noted** that the main barriers to using EO data are:

- the complexity of image pre-processing;
- low availability and poor quality of *in situ data*;
- low transferability of models across regions and seasons;
- lack of user friendliness of existing EO platforms; and
- the need to ensure data confidentiality.

The Commission **noted** that FAO's EOSTAT project:

- kicked off in 2020 under the leadership of the Office of the Chief Statistician of FAO with the aim of building capacity in NSOs in developing countries in the operational use of EO data for the production of agricultural statistics; and
- the project aims to overcome the identified barriers through technical innovation, training and change management.

31. Mr Francesco Tubiello of FAO presented APCAS/21/7.2, "Using earth observation for producing environmental statistics." Mr Tubiello said that FAO develops methods and tools to support experts in Member Nations to work with available geospatial information. This helps them to produce better environmental statistics by increasing national data availability, improve dissemination by FAO of basic environmental statistics, and enhance reporting by countries to international processes.

The Commission **noted** that geospatial products derived from RS can be used to generate environmental statistics at the subnational and national levels that complement existing, more traditional processes.

The Commission **encouraged** countries to use tools, data platforms and other geospatial products to generate environmental and agricultural statistics at disaggregate levels.

The Commission **noted** that FAO's Hand-in-Hand platform and FAOSTAT environmental statistics are a basis for capacity development activities aimed at improving national analysis and international reporting across multiple processes.

The Commission **recommended** that FAO provide countries with technical assistance to use EO data in the production of environmental and agricultural statistics, and transfer tools and knowledge.

32. Ms Jo Edwards of Australia presented APCAS/21/7.3, "Earth observation derived crop mapping to help produce agricultural statistics." She presented a case study using satellite-derived crop mapping to create agriculture statistics on sugarcane. The study highlighted the use case to determine trusted sugarcane business locations by cross-referencing the sugarcane crop maps with business registers. The use of EO data provided a means for the Australian Bureau

of Statistics to compile timely, regional statistics without survey questionnaires. It provides the framework for applying the same methods to other agricultural commodities and applications.

The Commission **noted** that in Australia, government and industry are working in partnership to use EO data for crop mapping to create agricultural statistics.

33. Ms Wida Widiastuti of Indonesia presented APCAS/21/7.4, "Land cover mapping through remote sensing and machine learning for Indonesian Census of Agriculture 2023." The role of geospatial data in the planning for the 2023 Agriculture Census is expanding. Indonesia is using geospatial information in the agricultural census for delineating enumeration areas, geo-tagging the geographic location of agricultural households, and identifying potential agricultural lands through land-cover mapping.

The Commission **noted**:

- how RS can be used in the design and implementation of an agricultural census; and
- that ground truth, *or in situ*, data collection is an important step in obtaining good quality training data, which is necessary for the effective use of EO data.

34. Mr Batdavaa Batmunkh of Mongolia presented APCAS/21/7.5, "Experience in crop data using remote sensing techniques." Mongolia is applying two methodologies to estimate crop yield data using RS techniques: random forest and spectral angle mapper (SAM). Initial results showed a promising ability to differentiate crop types using the SAM method and crop yield estimation using the random forest method, and the potential to extend these methodologies to other crops. Many NSOs do not have the dedicated RS teams needed to effectively use EO data.

The Commission **noted** that there are open-source systems, such as the Sen2Agri system, that enable the use of EO data for the production of agricultural statistics.

The Commission **encouraged** countries to explore:

- using agricultural survey data as potential sources of ground truth data to train EO models; and
- using RS techniques in conducting agricultural censuses and surveys, and building staff capacity on the use of RS techniques.

Enhancing fishery, aquaculture and forestry data – achievements and challenges
(Item 8 of the Agenda, Chaired by Ms Sera Bose, Fiji)

35. Ms Stefania Vannuccini of FAO presented APCAS/21/8.1, "Enhancing fishery and aquaculture statistics: international perspective." She detailed the main

complexities and challenges in the collection of statistics to capture fisheries, aquaculture production, and fisheries trade. Fisheries and aquacultural statistics need to be improved through further capacity building, adoption of international standards, use of effective methodologies, utilization of proper tools, exploiting new technologies and using big data.

The Commission **encouraged** countries to:

- integrate the global SDG monitoring framework into their national indicator framework to ensure internationally comparable SDG indicators and enable regional and global aggregation; and
- reinforce data collection to report on SDG 14 indicators, particularly the data-driven SDG indicators 14.4.1 (sustainable fish stocks) and 14.7.1 (sustainable fisheries).

The Commission **recommended** that FAO:

- coordinate efforts with development partners to support countries to improve fisheries and aquaculture statistics;
- support countries to adopt sound data collection according to international standards, and improve the collection and production of data on small-scale fisheries and inland fisheries; and
- improve the methodology for estimating the volume of aquaculture production by species.

36. Mr Julian Fox of FAO presented APCAS/21/8.2, "Open Foris - free and open-source tools and methods for data collection, analysis and reporting." The presentation detailed the Open Foris suite of free and open-source tools and methods for data collection, analysis and reporting. The suite of tools is being utilized in more than 130 countries, with more than 44 countries having integrated these tools into their forest monitoring systems.

The Commission **noted** the flexible, open and user-friendly tools of Open Foris for natural resource monitoring and EO, and **encouraged** FAO to look into the broader use of these tools for agricultural statistics.

37. Chaired by Ms Sera Bose (Fiji), a country experiences panel comprised of Ms Minerva Eloisa Esquivas (Philippines) and Ms Su'a Sapeti Tiitii (Samoa) discussed advances in the development of fisheries and aquaculture statistics in the Philippines and Samoa. The Philippines has been using RS for aquaculture, but the costs of satellite imagery are high, and partnerships with academia are important. Samoa has been developing coastal fisheries and aquaculture statistics through regular market surveys and the recent agriculture and fisheries census. Ms Su'a said that issues in this domain include a lack of focus on fisheries as compared to agriculture, limited staff and equipment, and database issues.

Any other business (venue, date and topics for the next APCAS Session)
(Item 9 of the Agenda)

38. The Commission **noted** that Nepal offered to host the Thirtieth Session of APCAS, subject to high-level national approval. The APCAS Secretary committed to following up with Commission members, in consultation with the Chair of APCAS29, regarding the host for the Thirtieth Session.

39. The Commission **noted** suggestions for topics for the next session of APCAS. These included: (i) livestock; (ii) cost of cultivation/production estimates; (iii) price forecasting and early warning systems; (iv) the SDG indicators (food, gender, disaster statistics); (v) food security; (vi) education in agricultural statistics; (vii) use of new technologies such as RS; (viii) agricultural hybrid census; (ix) crop yield and production estimation at the small area level (village/cluster of villages) using EO data and modern technology; and (x) challenges in horticulture crop production estimation.

40. The Commission **noted** that additional topics should be referred to the APCAS Secretary for consideration.

Presentation and adoption of the draft recommendations and conclusions
(Item 10 of the Agenda)

41. The chair of the drafting committee, Mr Tobden Tobden, of Bhutan, read through the draft recommendations and conclusions and invited comments and corrections. The report was updated live and the Commission adopted the revised draft report.

Closing ceremony
(Item 11 of the Agenda)

42. The Twenty-ninth Session of APCAS came to a conclusion following closing remarks delivered by Mr Batdavaa Batmunkh, Chairman of the National Statistics Office of Mongolia and Ms Sangita Dubey, APCAS Secretary, FAO Regional Office for Asia and the Pacific.

Appendix A

List of documents

Doc. no.	Agenda item	Title of document
Meeting documents		
APCAS/21/INF1		List of documents
APCAS/21/INF2		Information note
APCAS/21/INF3		List of participants
APCAS/21/INF4		Statute of the Commission
APCAS/21/INF5		Report of the Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics
APCAS/21/INF6		Provisional agenda
APCAS/21/INF7		Provisional timetable
Presentations		
APCAS/21/3.1	3	Implementation of the recommendations of the Twenty-eighth APCAS Session
APCAS/21/3.2	3	Response rates to FAO questionnaires
APCAS/21/3.3	3	Progress of the RAP region in reporting the SDG indicators under FAO custodianship
APCAS/21/4.1	4	Impact of COVID-19 on agricultural censuses in Asia Pacific
APCAS/21/4.2	4	Methodological adaptations and strategies for remote collection of FIES
APCAS/21/5.1	5	Measuring progress toward SDG targets
APCAS/21/5.2	5	Accelerating FAO support on SDG monitoring (Regional Roadmap and Toolkit)
APCAS/21/5.3	5	Guidelines on data disaggregation for SDG indicators using survey data
APCAS/21/5.4	5	Monitoring SDG target 2.1 in the Pacific region - filling the data gap

Doc. no.	Agenda item	Title of document
APCAS/21/5.5	5	Computation of farm-based SDG indicators: Indonesia's experience in conducting Agricultural Integrated Surveys
APCAS/21/6.1	6	Implementation of the 50 x 2030 Initiative in Asia Pacific
APCAS/21/6.2	6	DataLab@FAO: a new approach to fill data gaps
APCAS/21/6.3	6	Implementation of AGRIS in Cambodia
APCAS/21/7.1	7	Using earth observation for producing agricultural statistics
APCAS/21/7.2	7	Using earth observation data for producing environmental statistics
APCAS/21/7.3	7	Earth observation derived crop mapping to help produce agricultural statistics
APCAS/21/7.4	7	Land cover mapping through remote sensing and machine learning for Indonesian Census of Agriculture 2023
APCAS/21/7.5	7	Methodology to estimate crop yield data using remote sensing techniques in agricultural statistics
APCAS/21/8.1	8	Enhancing fishery and aquaculture statistics: international perspective
APCAS/21/8.2	8	Open Foris - free and open source tools and methods for data collection, analysis and reporting

Appendix B

Agenda

1. Opening ceremony
2. Election of officers and adoption of the agenda
3. FAO's activities in food and agricultural statistics in Asia and the Pacific, and follow-up to recommendations from APCAS28
4. Impact of COVID-19, and adaptations of statistical operations
5. Challenges and methodological development for collecting SDG Indicators in Asia and Pacific
6. 50x2030 initiative and statistical innovation in agricultural statistics
7. Use of EO data for producing agricultural statistics
8. Enhancing fishery, aquaculture and forestry data – achievements and challenges
9. Any other business
10. Presentation and adoption of the draft recommendations and conclusions
11. Closing ceremony

Appendix C

Timetable

MONDAY, NOVEMBER 22

13.30	**Agenda item 1: Opening ceremony**
13.32–13.41	Welcome Remarks by HE Zandanshatar Gombojav, Chairperson of the Parliament of Mongolia
13.41–13.50	Welcome Remarks by Mr Batdavaa Batmunkh, Chairperson of National Statistics Office of Mongolia
	Welcome video from the Government of Mongolia
13.50–13.59	Remarks by Mr Kadarmanto, APCAS Chairperson, Statistics Indonesia
13.59–14.08	Address by Mr Vinod Ahuja, FAO Representative to Mongolia, on behalf of FAO Assistant Director-General and Regional Representative for Asia and the Pacific
14.08–14.17	Address by Mr Pietro Gennari, FAO Chief Statistician, FAO Headquarters, Rome
14.17–14.26	Opening Speech by Mr Mendsaikhan Zagdjav, Minister for Food, Agriculture and Light Industry of Mongolia
14.26–14.30	Vote of thanks by Ms Sangita Dubey, APCAS Secretary
14.30–14.45	**Virtual photo session and break**
14.45	**Agenda item 2: Election of officers and adoption of agenda (presided over by the outgoing Chair, Indonesia)**
14.45–14.50	Election of officers (Chair, Vice-Chairs and Drafting Committee)
14.50–14.55	Remarks by the Co-Chairs of APCAS29, Mr Batdavaa Batmunkh (Chairman of the National Statistics Office of Mongolia) and Mr Ganzorig Bulgankhuu (Director of the International Cooperation Division, Policy and Planning Department, Ministry of Food, Agriculture and Light Industry, Mongolia)
14.55–15.00	Adoption of the agenda

15.00 **Agenda item 3: FAO's activities in food and agricultural statistics in Asia and the Pacific, and follow-up to the recommendations from APCAS28**

Session Chair: Philippines

15.00–15.15 Implementation of the recommendations of the Twenty-eighth APCAS Session (FAO Regional Office for Asia and the Pacific)

15.15–15.30 Response rates to FAO questionnaires (FAO Statistics Division and Office of the Chief Statistician)

15.30–15.45 Progress of the RAP region in reporting the SDG indicators under FAO custodianship (FAO Office of the Chief Statistician)

15.45–16.00 Roundtable discussion on proposed recommendations and wrap-up (Moderated by the Philippines)

16.00 ***Close of day 1***

TUESDAY, NOVEMBER 23

13.30 **Agenda item 4:impact of COVID-19 and adaptations of statistical operations**

Session Chair: Nepal

13.30–13.45 Impact of COVID-19 on agricultural censuses in Asia and the Pacific (FAO Statistics Division)

13.45–14.00 Methodological adaptations and strategies for remote collection of FIES (FAO Statistics Division)

14.00–14.25 Country experiences panel (Fiji, India, Lao PDR) and roundtable discussion on proposed recommendations (Moderated by Nepal)

14.25 **Agenda item 5: Challenges and methodological development for collecting SDG indicators in Asia and the Pacific**

Session Chair: Mongolia

14.25–14.40	Measuring progress toward SDG targets (FAO Office of the Chief Statistician)
14.40–14.55	Accelerating FAO support on SDG monitoring (Regional Roadmap and Toolkit) (FAO Office of the Chief Statistician)
14.55–15.10	Guidelines on data disaggregation for SDG indicators using survey data (FAO Office of the Chief Statistician)
15.10–15.30	Monitoring SDG target 2.1 in the Pacific region – filling the data gap (Pacific Community)
15.30–15.45	Computation of farm-based SDG indicators: Indonesia's experience in conducting Agricultural Integrated Surveys (Indonesia)
15.45–16.00	Roundtable discussion on proposed recommendations (Moderated by Mongolia)

16:00 ***Close of day 2***

WEDNESDAY, NOVEMBER 24

13.30 **Agenda item 6: 50 x 2030 Initiative and statistical innovation in agricultural statistics**

Session Chair: United States

13.30–13.45	Implementation of the 50x2030 Initiative in Asia and the Pacific (FAO Statistics Divisions)
13.45–14.00	DataLab@FAO: a new approach to fill data gaps (FAO Statistics Division)
14.00–14.15	Implementation of AGRIS in Cambodia (Cambodia)
14.15–14.40	Country experiences panel (Cambodia, Indonesia, Nepal) and roundtable discussion on proposed recommendations (Moderated by United States)

14.40 **Agenda item 7: Use of earth observation data for producing agricultural statistics**

Session Chair: India

14.40–14.55 Using earth observation for producing agricultural statistics (FAO Office of Chief Statistician)

14.55–15.10 Using earth observation data for producing environmental statistics (FAO Statistics Division)

15.10–15.25 Earth observation-derived crop mapping to help produce agricultural statistics (Australia)

15.25–15.40 Land cover mapping through remote sensing and machine learning for the Indonesian Census of Agriculture 2023 (Indonesia)

15.40–15.55 Methodology to estimate crop yield data using remote sensing techniques in agricultural statistics (Mongolia)

15.55–16.10 Roundtable discussion on proposed recommendations (Moderated by India)

16.10 ***Close of day 3***

THURSDAY, NOVEMBER 25

13.30 **Agenda item 8: Enhancing fishery, aquaculture and forestry data – achievements and challenges**

Session Chair: Fiji

13.30–13.45 Enhancing fishery and aquaculture statistics: international perspective (FAO Fisheries Division)

13.45–14.00 Open Foris - free and open source tools and methods for data collection, analysis and reporting (FAO Regional Office for Asia and the Pacific)

14.00–14.20 Country experiences panel (Philippines, Samoa) and roundtable discussion on proposed recommendations (Moderated by Fiji)

14.20–14.30	**Agenda item 9: Any other business** (venue, date, topics for next APCAS)
14.30–15.40	**Agenda item 10: Presentation and adoption of the draft recommendations and conclusions**
15.40	**Agenda item 11: Closing ceremony**
15.40–15.47	Chairpersons of APCAS29
15.47–15.54	FAO Director of Statistics Division
15.54–16.00	FAO Regional Statistician for Asia and Pacific
16.00	**Close of APCAS29 (Moderator)**

Appendix D

Speeches

Welcome remarks by the Chair of the Parliament of Mongolia

HE Zandanshatar Gombojav

The Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics

Ulaanbaatar, Mongolia,
22–25 November 2021

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HE Mendsaikhan Zagdjav, Minister for Food, Agriculture and Light Industry of Mongolia
Mr Batdavaa Batmunkh, Chairperson of the National Statistics Office of Mongolia
Mr Kadarmanto, APCAS28 Chairperson
Mr Pietro Gennari, Chief Statistician of FAO
Mr Vinod Ahuja, FAO Representative to Mongolia
Ms Sangita Dubey, Secretary of APCAS

Distinguished guests and participants of the session
Ladies and gentlemen,

First of all, I would like to extend my warmest welcome to the delegates and participants attending the Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics.

On behalf of the Parliament of Mongolia and personally, I would like to express my sincere gratitude to countries of the region and the Food and Agriculture Organization for giving Mongolia an important responsibility to host this high-level regional session.

The Parliament of Mongolia places greater emphasis on transforming the agricultural sector into one that is sustainable, adaptable to climate change, highly productive, resilient to risks and innovative. This policy has been reflected into legislation and policy documents such as the Law on Food, the Law on Animal Health, the Law on Livestock Genetic Resources, and the Law on Livestock Tax, the National Security Concept, the State Policy on Herders, and the State Policy on Food and Agriculture.

One of the goals, set in the Vision 2050 – a long-term policy of Mongolia – is to promote an environment-friendly green development, to maintain the balance

of the ecosystem and to create conditions for present and future generations to reap its benefits and improve the quality of human life.

When it comes to the commitment to “leave no one behind,” poverty reduction is a pressing issue faced at the current development stage of our country. To end poverty, we will ensure that policy decisions being made by the government towards provision of healthy and safe food to the population.

Distinguished guests and participants of the session
Ladies and gentlemen,

The Mongolian agricultural sector has been the backbone of our economy for generations, and it currently accounts for 13 percent of GDP and 6 percent of total exports, and employs 24 percent of the labour force. Therefore, increasing productive capacity of the food and agricultural sector can help our economy to diversify away from the mining sector and increase rural development, where 32 percent of our population resides.

Mongolia is heavily affected by climate change and desertification. The Gobi desertification continues to spread to the north of the country and 70 percent of Mongolia’s territory is deteriorated due to overgrazing, deforestation and climate change. Therefore, I would like to note that importance of data and statistics in support of early warning systems to mitigate risks facing households, due to climate change, is increasing.

To address these issues and achieve our goals towards sustainable development, close cooperation between our domestic institutions and development partners has become crucial. Particularly, our collaboration with UN agencies, including the Food and Agriculture Organization can be central to this issue, at a time when the role of national statistical organizations in estimating the indicators for the Sustainable Development Goals to support evidence-based policy decisions.

Distinguished guests, ladies and gentlemen,

We hope that this session of the Commission will make substantial contributions to data generation needed for developing legislation and policy decisions related to the food and agricultural sector of the region.

Though we are holding this session virtually due to the COVID-19 pandemic, we hope that you will be able to visit Mongolia in person when our lifestyle returns to a normal state after the pandemic.

I wish you all the success in this session.

Thank you very much.

Address by the Chairman of the National Statistics Office of Mongolia

Mr Batdavaa Batmunkh

The Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics

Ulaanbaatar, Mongolia,
22–25 November 2021

.....

HE Zandanshatar Gombojav, Chair of the Parliament of Mongolia
HE Mendsaikhan Zagdjav, Minister for Food, Agriculture and Light Industry of Mongolia
Mr Kadarmanto, APCAS28 Chairperson
Mr Pietro Gennari, Chief Statistician of FAO
Mr Vinod Ahuja, FAO Representative to Mongolia
Ms Sangita Dubey, Secretary of APCAS

Distinguished guests and participants
Ladies and gentlemen,

On behalf of Mongolia, all statisticians in the national statistical system, and personally, I would like to express my deep gratitude to the FAO for co-organizing this biennial session of the Asia and Pacific Commission on Agricultural Statistics and for giving the opportunity to host such an important event.

The National Statistics Office is closely working with the FAO in producing food safety and agricultural statistics. We would like to stress that the FAO has been providing technical assistance and recommendations in improving our methodology for statistics needed to compare the development of the country with other countries, enhancing estimates for the production, and generating data in support of evidence-based policy making.

This is the first time in the APCAS history that this session is being organized virtually. Discussing substantive topics, such as challenges countries are facing and good practices countries have adopted to overcome difficulties encountered during the coronavirus pandemic, estimation of SDG indicators, and enhancement of agricultural statistics, is most timely.

Reviewing the benefit from all the APCAS Sessions, we duly appreciate the value that has been created so far. I believe that we will gain new information and knowledge that would be utilized for our operation and for improvement of our agricultural statistics.

According to the Law of Statistics of Mongolia, the Livestock Census is conducted every year. Crop data is annually collected through nine forms and used to measure areas sown and crops harvested at household and enterprise levels. Next year we

will conduct our 2022 Agricultural Census and preparations for it are well underway now. As we prepare for this decennial census, hosting the APCAS Session in our country is of great significance to us and we are pleased to have the opportunity to learn best practices from other countries.

As the agricultural sector is considered to be the key sector for the development of our country and mainstreamed into the policy and the planning of our country, the demand for granular data on development indicators produced in a timely manner is increasing. Also, there are negative phenomena such as a growing number of livestock, increasing desertification due to climate change, overgrazing, and frequently occurring droughts and dzuds (harsh winter seasons) that would lead to catastrophes. Therefore, we aim to improve statistics for overgrazing, desertification, and disaster, and to introduce an early warning system, and to provide herders and citizens with the necessary data in a short period of time. In this context, we have commenced experiments on the use of new advanced technologies.

There is a pressing need for us to use remote sensing methods for the collection of data from households and enterprises, which are the main data sources for statistical organizations, and to expeditiously utilize big data and other data sources for our statistical operation. To this end, our country is conducting an experiment by using remote sensing methods for crop statistics; conducting household-based surveys using CATI; using a wealth of data gathered by tax authorities for economic statistics; and mounting the Establishment Census using innovative data collection methods.

As all the items in the session agenda will contribute to the further development of agricultural statistics, we would like to encourage you, the participants, to actively participate in the session activities.

We hope that a good time will come to invite you to visit our country in person and discuss our achievements when we have overcome the pandemic and returned to a normal lifestyle.

Thank you for your attention.

I wish you good health and success in your work.

Remarks of Outgoing Chair

Mr Kadarmanto
Director, BPS-Statistics, Indonesia

The Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics
Ulaanbaatar, Mongolia,
22– 25 November 2021

.....

HE Zandanshatar Gombojav, Chair of the Parliament of Mongolia
HE Mendsaikhan Zagdjav, Minister for Food, Agriculture and Light Industry of Mongolia
Mr Batdavaa Batmunkh, Chairperson of the National Statistics Office of Mongolia
Mr Vinod Ahuja, FAO Representative to Mongolia
Mr Pietro Gennari, Chief Statistician of FAO
Ms Sangita Dubey, Secretary of APCAS

Distinguished delegates, ladies and gentlemen,

Very good afternoon to you all.

First, of course, let us praise Almighty God for bestowing on us the opportunity to attend the Twenty-ninth Session of APCAS. It is indeed a pleasure to meet with you again, and I hope you are always in good health.

Distinguished delegates,

On behalf of BPS-Statistics Indonesia and Chair of APCAS28, I would like to take this opportunity to express our sincere appreciation to the Government of Mongolia for hosting this Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics and, of course, the expert guidance offered by the United Nation Food Agriculture Organization (FAO) in ensuring the convening of such an important meeting. Although this APCAS Session is held virtually, I hope this forum can serve as a fruitful and pleasant discussion for all participants.

I note that the agenda for APCAS29 is quite comprehensive. It also addresses some critical strategic issues in agricultural statistics, such as the impact of COVID-19 and Adaptations of Statistical Operations, Challenges and Methodological Development for Collecting SDG Indicators in Asia and Pacific, the 50 x 2030 Initiative and Statistical Innovation in Agricultural Statistics, the Use of Earth Observation Data for Producing Agricultural Statistics, and Enhancing Fishery and Aquaculture Data to Support the Monitoring and Sustainability of the Sector, and Contribute to SDGs.

Through a very comprehensive session covered in the APCAS29, I hope we can achieve a more efficient, effective and sustainable agricultural statistics system

in the Asia and Pacific area. Moreover, hopefully, through the sharing and discussion session, we can find the best practices and new strategies to further improve the statistics system. In this way, we can contribute to the more significant cause of ensuring food security and better world nutrition.

Distinguished delegates,

At this moment, I would like to express my gratitude to you, who have trusted me to serve as the Chairperson of APCAS28. It was indeed an honour, a privilege, and of course, a prestigious lifetime opportunity.

I would also like to thank the Commission that consistently gives their support and guidance in developing agricultural statistics in Asia and the Pacific. This well-established cooperation and collaboration, of course, needs to be maintained and improved.

Distinguished delegates,

As outgoing Chairperson of APCAS, my colleagues and I in Indonesia believe that under the next Chairperson's leadership and guidance, a higher level of quantity and quality of agricultural statistics could be achieved with strong collaboration among the Commission members.

To conclude, I would like to take this opportunity to again convey my heartfelt thanks to the host of the Twenty-ninth Session of APCAS – the Government of Mongolia – for hosting and organizing this event. I believe that all other distinguished delegates will share these sentiments.

Finally, I wish the Twenty-ninth Session of APCAS all the best and success in all deliberations.

Thank you, Terima Kasih

Address by FAO Regional Office for Asia and the Pacific

Mr Vinod Ahuja
FAO Representative for Mongolia

The Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics

Ulaanbaatar, Mongolia,
22–25 November 2021

.....

HE Zandanshatar Gombojav, Chairperson of the Parliament of Mongolia
HE Mendsaikhan Zagdjav, Minister for Food, Agriculture and Light Industry of Mongolia
Mr Batdavaa Batmunkh, Chairperson of the National Statistics Office of Mongolia
Mr Kadarmanto, APCAS28 Chairperson, BPS-Statistics Indonesia
Mr Pietro Gennari, Chief Statistician of FAO
Ms Sangita Dubey, Secretary of APCAS

Distinguished delegates, ladies and gentlemen,

On behalf of FAO's Regional Office for Asia and the Pacific and the FAO Representation to Mongolia, I extend a very warm welcome to the delegates present in this Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics (APCAS29). I am very grateful to the Government of Mongolia for cordially offering to host this session of APCAS in Ulaanbaatar, and to rising to the challenge of hosting the first virtual session of APCAS during a global pandemic that continues.

I would like to express my sincere gratitude to the Honourable Chair of the Parliament of Mongolia and to the Honourable Minister for Food, Agriculture and Light Industry of Mongolia for sparing their valuable time to be with us today. I also extend my sincere appreciation to Mr Batdavaa, Chairperson of the National Statistics Office of Mongolia, for hosting this virtual Twenty-ninth Session of APCAS, and for taking his valuable time to stay with us throughout the next days. I have no doubt that your words of wisdom will help guide the deliberations of the Commission over the coming days.

I am pleased to note that we have a record 200 participants from 40 countries and international and regional organizations, including some who are participating for the first time. My sincere welcome to all of you.

Ladies and gentlemen,

I would like to draw attention to how COVID-19 has underlined our need for better data to inform better and more targeted policies and responses. Better data and analytics have literally saved money and lives. Better data means data that is more timely, relevant, comparable and accurate. Better data means the use of new

technologies and sources such as data from satellites, mobile-based data collection, internet-scraped data, and the like. Better data means better data products and analytics.

During the pandemic, better data has resulted in almost near-time COVID-19 statistics that are internationally comparable, timely, and disaggregated, allowing for better containment measures, from border closures to targeted lockdowns; from mask mandates and social distancing requirements to technology-based infection tracing; from careful re-openings to tourism-inducing sandbox schemes. It enabled countries to identify population groups most at social and economic risk, and to introduce compensation schemes such as income and food price support.

During the next days of deliberation, I have no doubt that you will speak of the importance of these issues: adoption of international standards and comparability, technology use, and data disaggregation, among others.

Ladies and gentlemen,

FAO estimates that between 729 and 811 million people in the world faced hunger in 2020 – around 118 million more than in 2019. This increase is more than the populations of Bhutan, Fiji, Mongolia, Nepal, New Zealand and Timor-Leste combined. And the pandemic is a key driver of this increase. In 2020, more than half of the world's undernourished were found in Asia (418 million).

This means we are further than before from our target to achieve the Sustainable Development Goals. Even before the pandemic, data showed that we were not on track to meet many of the SDG targets, in part due to conflicts, climate change and inequalities. The pandemic has put us even farther behind. And we need better data to illuminate these issues so decision-makers can better target effective responses.

Ladies and gentlemen,

Not all is bleak. The pandemic has also induced innovations that are improving data production and use.

Despite cross-border travel constraints, we are here today in a virtual session of APCAS, with record participation from countries in the region, in large part due to innovations in virtual meeting platforms and technologies. These platforms enabled virtual statistics trainings of larger numbers of statisticians at lower costs during the pandemic than before it. It enabled the training of enumerators for mobile data collection to better respect social distancing. It accelerated the use of alternative data sources, such as satellite data and internet-scraped data on food prices.

I am confident these innovations are here to stay.

Ladies and gentlemen,

I have every confidence that this week of deliberations will result in recommendations of the Commission that help Member Nations and FAO to produce better data to support better decisions by our citizens, our organizations, and our governments.

Finally, I once again convey my sincere gratitude to the National Statistics Office of Mongolia for hosting this virtual session of the Commission and my special gratitude to the Honourable Chairperson of the Parliament and the Honourable Minister for their interest in agricultural statistics. I would also like to thank the governments of all the countries who have sent their delegations to this session of APCAS. I acknowledge the hard work put in by the Secretariat and the country office for organizing this session, and thank my colleagues from FAO headquarters and the regional office for their technical contributions in making this meeting productive and successful.

Thank you.

Address by FAO Chief Statistician

Mr Pietro Gennari

The Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics

Ulaanbaatar, Mongolia,
22–25 November 2021

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HE Zandanshatar Gombojav, Chairperson of the Parliament of Mongolia
HE Mendsaikhan Zagdjav, Minister for Food, Agriculture and Light Industry of Mongolia
Mr Batdavaa Batmunkh, Chairperson of the National Statistics Office of Mongolia
Mr Kadarmanto, APCAS28 Chairperson
Mr Vinod Ahuja, FAO Representative to Mongolia
Ms Sangita Dubey, Secretary of APCAS

Distinguished delegates, ladies and gentlemen,

As Chief Statistician of FAO, it is a great pleasure for me to extend a very warm welcome to all the delegates present in this Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics.

At the outset, I would like to add my sincere thanks to the National Statistics Office of Mongolia for agreeing to be the virtual host of the event. It is always a pleasure and honour for me to open these meetings, and greet all of the participants from statistical systems across the region. I also convey my sincere gratitude to the Honourable Chairperson of Parliament and the Honourable Minister for taking time out of their busy schedules to share their insights and words of wisdom.

In these years of the pandemic, the pressure on statistical agencies has never been higher. On the demand side, decision makers and the public at large request new, more timely and comprehensive data to track the pandemic, and design evidence-based policies to minimize its impact and keep people safe. On the supply side, the virus inhibits one of our most common data collection tools, that is, face-to-face interviews and direct measurement methods used in farm surveys and agricultural censuses.

During the past year we have seen countries making huge efforts to innovate their data collection methods to overcome COVID-19 social-distancing and containment measures. A good example is SDG indicator 2.1.2 on the prevalence of severe and moderate food insecurity. Several countries in the region switched to telephone surveys, adapted their questionnaires, and adjusted their sampling strategies to collect data for this indicator during the pandemic. Another example is the use of virtual training to build capacities of national statisticians and train enumerators.

Despite advancements even in the face of a pandemic, we have a long way to go. In 2021, the SDG reporting rate for Asia stood at 53.2 percent, almost identical to the world average. On the other hand, the reporting rate for Oceania, excluding Australia and New Zealand, was only 30 percent, revealing a tremendous data gap for Pacific countries that risks leaving them behind in the achievement of the 2030 Agenda. Given the setbacks due to the pandemic, we should scale up our efforts to collect data and use them effectively, to progressively increase the country-reporting rate and reach in the near future a situation where all countries will be able to monitor the entire set of SDG indicators.

This lack of relevant data is one of the key factors why the world is currently not on track to meeting the SDGs, in general, and the SDG targets related to food and agriculture, in particular. To achieve the SDGs, high quality data (relevant, timely, reliable and internationally comparable) are needed in order to identify development bottlenecks and inform policies and investment decisions.

There are multiple factors that explain the persistent scarcity of food and agriculture data in Asia and the Pacific. One of the key underlying factors is the extensive number of SDG indicators: four times more than in the MDG era, many of them completely new or produced outside of the national statistical system. Another important factor, often neglected, is the non-alignment of national indicators or even regional indicator frameworks with the global indicator framework, which makes national data internationally non-comparable and very challenging for custodian agencies to produce regional and global aggregates. By contrast, internationally comparable data on COVID-19 cases and fatalities has been critical in illuminating high-risk areas and individuals, and in identifying and adopting effective policy solutions from other countries.

Ladies and gentlemen,

I would like to highlight three additional explanatory factors in the persistent scarcity of food and agriculture data: low national statistical capacities; lack of funding for data and statistics; and a weak data dissemination and use culture in many national statistical offices.

First, low human and institutional capacities are typically the result of limited number of staff, low technical and managerial skills, poor statistical infrastructures, poor coordination among data producers, and weak regulatory frameworks. The SDG Statistical Capacity Assessment that FAO published shortly before the pandemic, revealed that the majority of countries requested assistance on one or more indicators and that most of them are not conducting key data collections on a regular basis. Although we have seen an overall improvement in the capacity to produce food and agriculture data, national statistical systems still struggle to address both traditional and emerging data demands.

The use of traditional survey tools and sampling methods impose limitations on the production of statistics at the level of disaggregation and timeliness required for effective decision-making. As a result, food and agriculture data are usually outdated and thus unable to provide actionable intelligence for governments and the international community to take effective measures for addressing complex sustainable development challenges.

Second, there is a persistent lack of funding for official statistics, in general, and even more for agricultural statistics. This is due to low investments by both donors and national governments. In terms of Official Development Assistance or ODA, only a mere 0.34 percent is allocated to official statistics and only a fraction of it to food and agricultural statistics. Compounding the problem of lack of funding is also the unhelpful approach to international cooperation in statistics, which has generally been top down, supply driven, effectively resulting in a multiplicity of piecemeal projects at country level.

Third, food and agriculture data – even when collected at a huge cost for the country – are not properly disseminated or used. The vast majority of data on food and agriculture collected through national surveys or censuses remains locked in institutional silos, and often made available only in paper or PDF formats that limit or prevent their re-use. This situation largely stems from a weak dissemination culture in national statistical systems, as well as a misunderstanding of the concept of data protection and data confidentiality. Moreover, most NSOs still believe that their main mandate is just to produce data – not to analyse them; for this reason, they generally lack the capacity to disseminate key messages to inform policy decisions. On the other side, the statistical literacy of policy-makers and decision-makers is rather limited and official statistics disseminated by the NSOs are often misinterpreted.

Ladies and gentlemen,

All these problems put together paint a daunting picture, yet there are a number of specific solutions that we can and should implement. We have to leverage new methods and alternative data sources, to complement traditional statistics, and generate disaggregated data that ensures we leave no one behind. We have to scale up investment in statistics and convince decision-makers and donors to stop treating statistics like an afterthought. We have to embrace open data, increase the analytical capacity of NSOs, and deal with data protection and privacy in a way that doesn't obstruct data dissemination. In fact, during this Commission, we will present a series of new tools and methodologies developed by FAO to accelerate these efforts, and we look forward to receiving your feedback.

The purpose of this Commission is precisely to convene, every two years, the senior experts of the region to review and redirect FAO priorities in agricultural statistics. In this regard, as Chief Statistician, I would really appreciate if you could please speak up and give us feedback on the methodologies, tools, and ideas that will be presented during this Commission. We all need to better understand how these new methods and

tools can be adapted or improved to support national statistical systems. In addition, we want to know if your country would like to receive support from FAO on these topics, so please use every opportunity provided by the organizers to let us know.

In closing, I wish you a very successful event, and look forward to receiving the recommendations stemming from this meeting and to collaborating with you in implementing them.

Thank you.

Opening Speech

HE Mendsaikhan Zagdjav
Minister for Food, Agriculture and Light Industry of Mongolia

The Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics
Ulaanbaatar, Mongolia,
22–25 November 2021

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Dear,
HE Zandanshatar Gombojav, Chair of the Parliament of Mongolia
Mr Batdavaa Batmunkh, Chairperson of the National Statistics Office of Mongolia
Mr Kadarmanto, APCAS28 Chairperson
Mr Pietro Gennari, Chief Statistician of FAO
Mr Vinod Ahuja, FAO Representative to Mongolia
Ms Sangita Dubey, Secretary of APCAS

Distinguished participants of the conference, ladies and gentlemen,

Good afternoon! I would like to extend my sincere greetings to you all.

It is an honour for Mongolia to host the session of statisticians, especially agricultural statisticians, who produce key indicators for their country's development, including population, society, economy, and environment.

The Twenty-ninth Session of the APCAS will feature exchanges and discussions of international experiences in and innovative approaches to production of data required to shape policy and decision-making in the light of several substantive topics such environment, livestock, crop, forestry, fishery, hunting, and food security.

Mongolia has a vast territory inherited from our ancestors. The agricultural sector, including animal husbandry, plays a significant role in the economy, employment, exports and GDP. The Mongolian livestock is well adapted to harsh natural and climate conditions and preserve their unique biological characteristics thanks to long-lasting natural selection and traditional selective breeding passed down from the time-honoured herding practices for centuries. Mongolian breeds of livestock have the advantage of being herd during four seasons of the year, bred, and provide their yields. In 2020, the total number of livestock in Mongolia is 67.1 million (of which 4.1 million are horses, 4.7 million are cattle, 0.47 million are camels, 30.0 million are sheep, and 27.7 million are goats). This indicates that our country has a larger potential for the eco-food production.

Although Mongolia is one of the few countries in the world that has preserved its natural beauty, there is a growing concern about environmental pollution, scarcity

of natural resources, and ecosystem imbalance due to urbanization, overgrazing, and environmental and climate change.

As each country strives to define its country-specific development path in line with global development trends, there is an increasing demand for evidence-based policy-making aimed at focusing on environmentally friendly green development, maintaining ecosystem balance, ensuring environmental sustainability, creating an opportunity to provide benefits to its present and future generations, and improving the life quality of its people.

Therefore, there is a growing need to improve statistical methodology, generate new data sources, use big and open data, and high-frequency and disaggregated data.

We are confident that actions we have taken and results from this session will make a tangible contribution to the regional countries to achieve sustainable development, to improve baseline estimation used for developing evidence-based decision-making concerning the agricultural sector, and to move into the green economy and measure it.

Our special thanks goes to the UNFAO for its support and assistance in organizing this session and allowing us to share our experience and practices and learn from each other.

I wish the participants the best of health and happiness, high achievement in your work.

I wish success in the session activity.

Vote of Thanks

Ms Sangita Dubey
APCAS Secretary, FAO Regional Office for Asia and the Pacific

The Twenty-ninth Session of the Asia and Pacific Commission on Agricultural Statistics
Ulaanbaatar, Mongolia,
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HE Zandanshatar Gombojav, Chair of the Parliament of Mongolia
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Mr Kadarmanto, APCAS28 Chairperson
Mr Vinod Ahuja, FAO Representative to Mongolia
Mr Pietro Gennari, Chief Statistician of FAO

Distinguished speakers, honoured guests, ladies and gentlemen, dear friends,

It is a privilege to be part of APCAS29 and see you here today.

Many of us last met in APCAS28, held from 10–14 February 2020 in Bali, Indonesia, at the kind invitation of the host Government of Indonesia. APCAS28 was held just before the current pandemic, and was one of the last of FAO's face-to-face regional meetings. Even then, several countries cancelled their in person attendance as their governments restricted official international travel.

We are here less than two years later, at the kind invitation of our APCAS29 hosts, the Government of Mongolia. While travel is still restricted, the induced innovations that Mr Vinod Ahuja spoke of have led to a first ever virtual session.

Though our schedule is tight, we have an increase in participants to about 200 persons from almost 40 countries and 10 international and regional organizations, including participation of some countries for the first time in several years. Also for the first time, FAO has coordinated its regional statistics commissions and working groups to ensure that the same core Agenda is common throughout the world.

I extend my deepest appreciation to the delegates and observers attending this session. I look forward to your contributions, presentations and discussions. I thank my colleagues throughout FAO and from our Member Nations. I also extend my appreciation to colleagues in partner agencies and organizations who also contributed to shaping the rich Agenda and its many presentations.

This APCAS would not be possible without the generosity, hard work and support of the Government of Mongolia. I would particularly like to thank the Honourable Chair of the Parliament of Mongolia, and the Honourable Minister for Food, Agriculture and Light Industry for taking time from their busy schedules to be with us today, and to the Chairman of the National Statistics Office for staying with us throughout the session.

My heartfelt thanks to the officials of our host government and to my team in the APCAS Secretariat who worked tirelessly to organize what I hope will be an interesting and fruitful session.

Thank you.

Appendix E

Member Nations of the Commission as of November 2021

1. Afghanistan
2. Australia
3. Bangladesh
4. Bhutan
5. Cambodia
6. China
7. Fiji
8. France
9. India
10. Indonesia
11. Iran (Islamic Republic of)
12. Japan
13. Lao People's Democratic Republic
14. Malaysia
15. Maldives
16. Mongolia
17. Myanmar
18. Nepal
19. New Zealand
20. Pakistan
21. Papua New Guinea
22. Philippines
23. Republic of Korea
24. Samoa
25. Sri Lanka
26. Thailand
27. Timor-Leste
28. Tonga
29. United Kingdom of Great Britain and Northern Ireland
30. United States of America
31. Viet Nam

Appendix F

Dates and places of Sessions of the Asia and Pacific Commission on Agricultural Statistics

First	Tokyo, Japan, 26 September–3 October 1966
Second	New Delhi, India, 9–14 December 1968
Third	Bangkok, Thailand, 26–31 October 1970
Fourth	Seoul, Republic of Korea, 6–12 October 1972
Fifth	Kuala Lumpur, Malaysia, 16–20 July 1974
Sixth	Manila, Philippines, 25–31 March 1976
Seventh	Bangkok, Thailand, 17–23 August 1978
Eighth	Kathmandu, Nepal, 26–31 October 1980
Ninth	Dhaka, Bangladesh, 2–7 December 1982
Tenth	Jakarta, Indonesia, 26 July–1 August 1984
Eleventh	Seoul, Republic of Korea, 29 May–3 June 1986
Twelfth	Colombo, Sri Lanka, 10–16 August 1988
Thirteenth	Bangkok, Thailand, 29 October–2 November 1990
Fourteenth	Beijing, China, 8–13 June 1992
Fifteenth	Manila, Philippines, 24–28 October 1994
Sixteenth	Tokyo, Japan, 28 October–1 November 1996
Seventeenth	Hobart, Australia, 2–6 November 1998
Eighteenth	Bali, Indonesia, 6–10 November 2000
Nineteenth	Seoul, Republic of Korea, 21–25 October 2002
Twentieth	New Delhi, India, 20–24 September 2004
Twenty-first	Phuket, Thailand, 11–15 September 2006
Twenty-second	Kuching, Sarawak, Malaysia, 9–13 June 2008
Twenty-third	Siem Reap, Cambodia, 26–30 April 2010
Twenty-fourth	Da Lat, Viet Nam, 8–12 October 2012
Twenty-fifth	Vientiane, Lao People's Democratic Republic, 18–21 February 2014
Twenty-sixth	Thimphu, Bhutan, 15–19 February 2016
Twenty-seventh	Nadi, Fiji, 19–23 March 2018
Twenty-eighth	Bali, Indonesia, 10–14 February 2020
Twenty-ninth	Ulaanbaatar, Mongolia, 22–25 November 2021

Appendix G

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