ANNUAL REPORT 2022

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Foreword

It is my great pleasure to present the Asian Productivity Organization (APO) Annual Report for 2022. As the 13th Secretary-General of the APO, I am honored to lead an organization that has been at the forefront of promoting productivity and sustainable development in the Asia-Pacific region for over six decades.

The year 2022 marked a turning point for the APO, with a growing sense of optimism that the worst of the pandemic was finally behind us. The lifting of travel restrictions in many countries allowed us to resume in-person projects and activities, which had been disrupted for much of 2020 and 2021. This was a welcome development, as we were able to reconnect more closely with our members. I am grateful to APO members and stakeholders for their patience and support during those challenging times and look forward to continuing our work together to increase productivity in the region.

I strongly believe that human capital development can be achieved through productivity initiatives, and the APO will remain committed to its mission of enhancing the skills and knowledge of professionals, industry leaders, and policymakers through its diverse programs.

The APO's success is built on strong partnerships and synergy with our members, and we are proud to have worked closely with them to achieve our goals. I would like to recognize the efforts of the APO Secretariat and NPOs for deepening our collaboration through the newly established Vision 2025 Outreach Program and the revamped APO National Awards, as well as for making great strides by establishing the third APO-accredited Certification Body (CB), the MPOCB in Mongolia, and completing Pakistan's National Productivity Master Plan.

> "I believe that by working together, we can leverage our collective strengths and resources to address the region's most pressing productivity challenges."

As we move forward, we remain committed to our principles of good governance and transparency to ensure that the resources of the APO are used for the benefit of member economies. The Secretariat has implemented measures to enhance its accountability through the engagement of a third-party evaluator to assess the performance and management of the Secretariat and APO activities.

Looking ahead, I see many opportunities to continue creating meaningful, impactful outcomes through collaboration with member governments and others. I believe that by working together, we can leverage our collective strengths and resources to address the region's most pressing productivity challenges, such as improving the gap between the workforce and industry requirements, enhancing the competitiveness of SMEs, and promoting sustainable, inclusive growth. The APO will continue to engage with members to identify new areas for collaboration and partnership and to develop innovative solutions that meet the evolving needs of the region. Together, we can build a more productive, resilient, sustainable Asia-Pacific.

Dr. Indra Pradana Singawinata
Secretary-General

64th Session of the APO Governing Body

The 64th Session of the APO Governing Body (GBM) was conducted virtually on 7 and 8 June 2022.

The meeting was attended by APO Directors representing 20 member economies. APO Director for Indonesia Budi Hartawan delivered the Welcome Address, followed by the remarks of Secretary-General Dr. AKP Mochtan. Minister of Manpower of Indonesia Ida Fauziyah delivered the Inaugural Address. Outgoing APO Chair and APO Director for Bangladesh Zakia Sultana gave the Welcome Statement, and incoming APO Chair and APO Director for Cambodia Phork Sovanrith presented the Opening Remarks.

The APO Chair is assigned on a rotational basis based on the alphabetical order of member economy names as decided by the GBM in 2002 and practiced since 2003, beginning with Bangladesh. Thus, under this system, the 64th GBM elected APO Director for Cambodia Phork Sovanrith as APO Chair for 2022–23, with APO Director for the ROC Sheng-Hsiung Hsu as First Vice Chair and APO Alternate Director for Fiji Dr. Isimeli Waibuta Tagicakiverata as Second Vice Chair.

The GBM discussed and approved the introduction of an Independent Evaluation System by a Third Party proposed by the Government of Japan to evaluate the APO Secretariat's institutions, operations, and achievements to enhance the transparency, accountability, integrity, and effectiveness of activities. Dr. Indra Pradana Singawinata, nominated by the Government of Indonesia, was selected as the 13th APO Secretary-General to serve from 16 September 2022 to 15 September 2025 after an online voting process had been conducted.

A special presentation by H.E. Rachmat Gobel, Vice Speaker, House of Representatives, Indonesia, provided insights on "Postpandemic Productivity Enhancement Strategy," followed by the policy directive presentations of APO Directors on "Postpandemic Productivity Enhancement Strategy."

63rd Workshop
Meeting of Heads of NPOs

The 63rd Workshop Meeting of Heads of National Productivity Organizations (WSM) was conducted in Bangkok, Thailand, 18–20 October, in the face-to-face modality after two virtual WSMs in 2020 and 2021.

It was attended by 37 NPO delegates and 14 advisers from 19 APO member economies. The delegates from the NPO Bangladesh were unable to attend, while NPO Delegates from I.R. Iran attended virtually. Due to the agenda and considering the prolonged COVID-19 situation, no observers were invited. APO Alternate Director and NPO Head for Thailand Surachet Polwanich delivered the Welcome Remarks, followed by the Inaugural Address by Deputy Permanent Secretary Panuwat Triyangkulsri, Ministry of Industry of the Government of Thailand.

In welcoming WSM delegates, Secretary-General Dr. Indra Pradana Singawinata emphasized the mandate of the APO in assisting its members and the importance of the network of NPOs, experts, and stakeholders. The need for good governance with accountable decision-making and implementation, participation and equity, and accountability without sacrificing effectiveness and efficiency was highlighted.

The WSM adopted the report on the In-house/ Questionnaire-based Evaluation of 2021 Projects and Independent Impact Evaluation of 2020/2021 Projects. It also discussed and endorsed reports on the APO National Award Program and APO Vision 2025 Outreach Program; Special Account for Business Recovery and Resilience; Green Productivity 2.0; APO Centers of Excellence; Strengthening the APO's Digital Capability; Updated Travel Arrangements; Procedures for Changes in the Modality of Projects; and Task Force on Financial Regulations and Project Regulations. It was decided to cancel the APO Liaison Officers' Meeting 2022 and hold it in 2023 under the budget of 2023 in Tokyo as travel restrictions in Japan were being relaxed.

The International Conference on Green Economy Growth: Synergizing Green Productivity and the Circular Economy was held on the final day of the WSM as part of the series of events to commemorate the APO's Diamond Jubilee, organized by Thailand as the host.

ACTIVITY REPORT

Return to the Face-to-face Modality

International Conference on Productivity Accreditation and Certification, Pakistan

The year 2022 held special significance for the APO, as it marked the organization's return to the face-to-face (F2F) project modality after almost three years of relying solely on virtual platforms due to the COVID-19 pandemic. This showcased the APO's resilience and adaptability in overcoming exceptional challenges. The APO quickly adapted to the new circumstances by transforming its project modalities to offer more options for NPOs and encourage more effective collaboration, knowledge sharing, and networking activities. These changes were particularly necessary to address the emerging needs of members during the pandemic and its aftermath.

With the gradual lifting of travel restrictions in APO members from the second quarter of 2022, 31 of 198 projects/programs were held F2F. This included the 63rd Workshop Meeting of Heads of NPOs, 18–20 October in Bangkok, Thailand, and two other significant events: the International Conference on Productivity Accreditation and Certification, 5–6 October in Islamabad, Pakistan; and the International Conference on Green Economy Growth: Synergizing Green Productivity and the Circular Economy, 20 October in Bangkok, Thailand. The latter two events commemorated the APO's Diamond Jubilee and brought together around 400 participants from all members, including high-level policymakers. Fifteen in-person study missions and Technical Expert Service projects were also undertaken, facilitating practical exchanges of knowledge and best practices in productivity improvement through physical communication and in-person site visits.

Another APO milestone was reached in December with the accreditation of the Mongolian Productivity Organization Certification Body (MPOCB). The MPOCB became the third CB among APO members to demonstrate compliance with the APO Accreditation Body standards for accrediting productivity specialists. The Productivity Specialists' Certification scheme is expected to expand and raise the level of MPO operations, confirming the quality and proficiency of its services and strengthening its productivity leadership in the country.

Courtesy visit by Indonesian Minister of Manpower Dr. Ida Fauziyah

Courtesy call on Pakistan's Federal Minister for Industries and Production, Syed Murtaza Madhmud

Additionally, 2022 marked the first time that the APO Vision 2025 was officially promoted in all members under the APO Vision 2025 Outreach Program. Under the main theme for 2022–23, "Innovations for Higher Productivity," various promotional activities were implemented, comprising public events such as conferences, competitions, talk shows, workshops, and seminars as well as the production of brochures, flyers, publications, and videos for the public. Through these activities, information about the APO and its Vision 2025 as well as NPOs was disseminated to all stakeholders in creative ways, which helped emphasize the continuing relevance of productivity throughout the region and the need to adopt innovations to achieve both higher productivity and sustainable socio-economic growth.

International Conference on Green Economy Growth: Synergizing Green Productivity and the Circular Economy, Thailand

Centrality of Productivity

The Centrality of Productivity focus area emphasizes the need for productivity to take center stage in national development planning agendas. This means that productivity is institutionalized at the national level and an integral element of the overall work ethos and culture. Under this focus area, projects are divided into three initiatives: Smart Transformation; Quality of the Workforce; and Green Productivity (GP).

Smart Transformation

Smart Transformation projects aim at enabling organizations in manufacturing, services, the public sector, and agriculture to transform their business models through the introduction of innovative inputs that may include technology, insights, tools, techniques, and modalities. In 2022, five training courses, five workshops, three e-courses, and one study mission in this focus area were conducted.

Quality of the Workforce

This initiative focuses on improving various aspects of workforce quality over time, ensuring that employees have the appropriate education, skills, knowledge, and competencies in the rapidly evolving, intensely competitive digital economy. In 2022, nine training courses, two workshops, and one e-course were conducted on the quality of the workforce.

Green Productivity

GP projects aim to intensify applications of the GP Framework and develop or disseminate new GP tools, techniques, and methods. These can be expanded to other environment-related issues such as climate change, the circular economy, and environmental, social, and governance aspects. To continue this effort, the APO conducted four training courses, four workshops, one study mission, and three e-courses in 2022.

Top: Training Course on Cold Chain Systems in Agrifood SMEs, Cambodia

Center and Bottom: Development of APO-certified Productivity Specialists, Malaysia

Workshop on National Digital Transformation, Vietnam


Workshop on National Digital Transformation, Vietnam


Multicountry Observational Study Mission on Productivity and Innovation for the Digital Economy, ROK

Innovation for Productivity

The second focus area is enabling innovation as the key driver of productivity. It underlines the point that productivity growth can be led or spurred by innovation only if a robust supporting ecosystem is in place. There are two initiatives under this focus area, Robust Ecosystems and Regulatory Frameworks and Innovation for Capability.

Robust Ecosystems and Regulatory Frameworks

Under this initiative, projects were developed to improve the regulatory environment to boost business dynamism and stimulate innovation. Another aim is to minimize bureaucracy and eliminate unnecessary, burdensome rules and regulations. In 2022, four workshops, one conference, one study mission, and two e-courses were conducted.

Innovation for Capability

Facilitating or enhancing the innovation capability of members and organizations through promotion of an innovation culture, generation of ideas, R&D, and adoption of international standards on innovation are focal points of the Innovation for Capability initiative. In 2022, the APO conducted one training course, six workshops, one conference, one study mission, and four e-courses to promote innovation for capability enhancement.

Inclusive Productivity

Under the topic of inclusive productivity, project content is designed to involve all economic sectors and segments of society in national productivity drives. Projects are categorized into three initiatives: SME Development; Broad-based Engagement; and Productivity Gainsharing.

SME Development

Under the SME Development initiative, the main objective is to enhance the capability of SMEs and reduce the size of the informal sector in member economies. Hence, projects were designed to enhance the capability of SMEs as well as informal-sector enterprises by introducing new productivity tools and techniques, benchmarking against best practices in the region and beyond, and creating networks to strengthen collaboration. Considering the importance of SMEs for the economic development of APO members, two workshops, one conference, two study missions, and one e-course were organized.

Broad-based Engagement

The Broad-based Engagement initiative is intended to encourage widespread participation in and commitment to the productivity movement. Involving women, youth, and persons with different abilities equips them with new productivity skills and knowledge and increases their participation in labor markets. Five workshops focusing on this area were implemented in 2022.

Productivity Gainsharing

Projects focusing on the concepts and practices of the equitable distribution and sharing of productivity gains at organizational level were developed. This initiative guides companies in measuring their productivity performance and linking it to gainsharing with all employees. In 2022, one training course, three workshops, and one e-course were organized to provide opportunities for member economies to examine and discuss gainsharing opportunities.

Observational Study Mission on Industry 4.0 Digital Industrial Platforms, Singapore

Observational Study Mission on Industry 4.0 Digital Industrial Platforms, Singapore

Regional Catalyst

The fourth focus area is the APO's role as a regional catalyst as the leading organization on productivity.This initiative also ensures that member economies benefit from APO research on emerging trends, including political, economic, environmental, social, and technological developments; leverage technology as a new mode of learning; develop standards for productivity specialists; and have access to a reference center on productivity-related topics. Under this focus area, projects are divided into four initiatives: Certification and Accreditation; Digital Learning; Research; and Centers of Excellence (COE).

Accreditation and Certification

The Accreditation and Certification Program was launched in 2018 to raise the APO's visibility as a leading productivity organization and elevate the role of NPOs from training providers to certification bodies (CBs) on productivity-related certification schemes. The program focuses on developing, implementing, and reviewing all activities related to accreditation and certification to cater to the needs of CBs, tap new opportunities, and adhere to international standards. So far, the APO has accredited CBs in Malaysia, Mongolia, and Vietnam to operate the Productivity Specialists' Certification Scheme and a CB in Indonesia to operate the Green Productivity Specialists' Certification Scheme. The NPOs of India, Indonesia, I.R. Iran, Pakistan, and Turkish Management Sciences Institute (TUSSIDE), an affiliated organization of the NPO of Turkiye, are in various stages of development to become APO CBs, while the NPS of Sri Lanka has initiated its CB development journey. In addition, a training course was conducted to develop qualified assessors for the smooth operations of accredited CBs.

Digital Learning

The APO continues to offer digital-learning programs open to individuals from members and nonmembers. In 2022, emphasis was given to the introduction of several new courses, resulting in a record number of 14 courses being initiated. Ten related to the industry and service sectors and four to agriculture. In addition to the new courses, 53 existing courses were retained, ensuring that digital-learning offerings remained comprehensive and relevant. Detailed information on the courses, number of registered participants, and number who passed the exams are available in Appendix 2.

The APO Productivity Talks that started in 2020 continued to be broadcast on the YouTube channel in 2022, with the addition of the P-Insights series to promote new productivity-related tools, research, products, and services. Forty-three sessions were organized, featuring 48 speakers/resource persons from around the world. The sessions had an average of 3,000+ views per month, and more than 3,900 new YouTube subscribers had registered by the end of 2022.

APO Productivity Databook 2022

A plaque to recognize the successful completion of the COE on BE handed over to the NPO Head for Singapore at the 63rd Workshop Meeting of Heads of NPOs, Thailand

Research and Program Development

The third initiative under the APO's role as a regional catalyst is Research and Program Development. Under this initiative, projects involve scanning and identifying emerging ideas and trends related to productivity in various sectors, analyzing the needs and requirements of members, and providing the basis for new program development. In 2022, 15 research projects were undertaken and are now ongoing, covering the Productivity Employment Index, productivity of the informal sector and SME transformation for meeting the SDGs, inclusive innovation policy and management systems, institutional ecosystems to drive productivity, policy study on productive economic structures of APO members, the Asian Productivity Outlook and analysis series, development of assessment tools for the agriculture sector, and assessing the needs of selected sectors of member economies.

Centers of Excellence (COE)

The COE Program was introduced in 2009 with the establishment of the COE on Business Excellence (BE) hosted by the Singapore Productivity Centre. The implementation guidelines were revised in 2021. Under the new guidelines, the "1-3-1" development model was introduced, whereby newly designated COE will have one year of designation, three years of delivery, and one year to disseminate knowledge to other members. COE that have completed this cycle are given the option either to renew for another two years or decide to end the program. In 2022, the Secretariat was reviewing proposals submitted by members as well as proactively exploring candidate COE. A plan to strengthen organizational excellence initially proposed by Pakistan as an APO COE was developed for subsequent reapplication. One potential candidate organization based in Japan was identified through the proactive efforts of the Secretariat. The APO COE on BE hosted by Singapore was officially closed as it had accomplished its mission with outstanding results.

Strengthening of NPOs and Policy Advisory Services

Under the Individual-country Program, the APO continues to play its key role as an institution builder by strengthening the ability of NPOs and other bodies to promote productivity, provide training, and offer capacity-building services to the public and private sectors. It also serves as a regional adviser, surveys the economic and development policies and performance of each member, and assists in formulating strategies for enhanced productivity and competitiveness. The entire Individual-country Program is now grouped under Strengthening of NPOs and Policy Advisory, including Technical Expert Services (TES), Bilateral Cooperation between NPOs (BCN), Individual-country Observational Study Missions (IOSMs), Specific National Program (SNP), Certification Body Development (CBD), Demonstration Companies (DMP), and APO Vision 2025 Outreach Program (VSN).

The easing of travel restrictions in 2022 enabled the shift to more F2F projects compared with 2021. Two BCN projects were implemented in the F2F modality, while seven IOSMs were organized, of which five were held F2F. In addition, 26 TES projects for 13 APO members were implemented, facilitated by 35 resource persons focusing on the most common topics such as productivity tools and techniques, including emerging ones such as digitalization and smart agriculture. Under the SNP, the development of national productivity roadmaps and institutional capacity-building projects for NPOs were held for I.R. Iran, the Philippines, and Vietnam. In the case of the Philippines, the focus was on developing a digitalization roadmap for the NPO. The development of a National Productivity Master Plan for Pakistan, which was continued from 2021, was completed. Three DMP projects were implemented for two NPOs, resulting in nine model companies/organizations. Activities under the VSN Program which were expected to disseminate the spirit of "innovation for higher productivity" in the productivity communities in each country were carried out in 18 members.

Bilateral Cooperation between NPOs

NPOs are the key productivity-promoting institutions in APO member economies. It is necessary for NPOs and other relevant institutions to develop and strengthen the capacity to pursue their roles effectively and efficiently. This requires continual efforts to enhance their capacity to deal with evolving productivity challenges. Learning from and collaborating with other NPOs on best practices can contribute to development and strengthening of capabilities. There are valuable opportunities for learning for mutual benefit among APO members, which are diverse and face unique circumstances.

The Bilateral Cooperation between NPOs (BCN) Program provides a platform for APO members to learn more about and share best practices to improve national productivity. It facilitates meetings between high-level policymakers and top NPO officials as well as observations of new productivity initiatives and interventions to assist members in becoming more productive and innovative. Learning about different views, perspectives, and experiences can provide innovative, creative insights and ideas on productivity practices and related issues to address current needs and requirements.

In 2022, two BCN projects were implemented in the F2F modality. One was hosted by the MPC for the NPS of Sri Lanka. Four participants benefited from this project on Strategic Innovation to Enhance Productivity. They learned the current focus areas and strategies of the MPC and visited some project sites of agricultural farms supported by the MPC. They also had discussions with the MPC on the future plans and strategies of the NPS and follow-up cooperation between the two NPOs. The other was hosted by the NTPC, Fiji National University, and involved four participants from the NPEDC, Nepal. The topic was Strengthening Capability for Productivity Promotion. The current status of the NTPC was shared and discussions on business excellence, quality circles, consultancy, and Green Productivity were held. The project included site visits

and discussions on future plans and strategies of the NPEDC. Participants in both BCN projects were expected to undertake follow-up activities based on the best practices demonstrated and new knowledge gained from the bilateral exchanges.

Certification Body Development

As a regional catalyst, the APO builds the capacity of NPOs and other stakeholders to improve productivity in member countries. The Certification Body Development (CBD) Program was initiated in 2019 with the objective of expanding the role of NPOs by developing them to become APO-accredited CBs and enabling them to operate productivity specialists' certification schemes, a unique area of certification services which is unavailable elsewhere. The program focuses on raising the level of NPOs and their affiliated organizations to produce proficient, reputable APO-certified productivity professionals in their countries and the region. Accredited certification holds significance for stakeholders and clients since the qualifications and credentials are aligned with international standards.

In 2022, the MPOCB was accredited by the APO as the third CB to operate the Productivity Specialists' Certification Scheme. Besides accreditation of the new CB, surveillance assessments of the MPC-CB and Vietnam Productivity Specialists Certification Body (ViProCB) were also conducted to ensure their continuous adherence to APO-AB standards. The NPOs of India, Indonesia, I.R. Iran, Pakistan, and Turkish Management Sciences Institute (TUSSIDE), an affiliated organization of the NPO of Turkiye, continued their efforts in various stages of development to become APO CBs, while the NPS of Sri Lanka initiated its CB development journey.

The CBD Program guides NPOs in complying with the prescribed requirements and standards of practice set by the APO-AB through consultancy and training by experienced resource persons on the scope of accreditation, certification process, competency of staff, and management structure. The CBD project is guided by the APO-AB 1003:2020 General Requirements for Certification Bodies: Certification of Persons Scheme; APO-PS 101:2019 Requirements for Productivity Specialists; and APO-GPS 201:2019 Certification Scheme and Competency Standard for Green Productivity Specialists.

Official launch of MPC-CB at the MPC office

Demonstration Companies

It is crucial to apply productivity improvement initiatives practically and continuously at firm and organizational level to sustain growth and long-term socioeconomic progress. Maintaining a critical mass of productivity practitioners and model companies/organizations will ensure continued productivity enhancement. Those practitioners and companies can be catalysts and disseminate productivity concepts, tools, techniques, and methodologies, making multiplier effects possible.

The Development of Demonstration Companies (DMP) Program provides unique opportunities to acquire practical productivity skills and knowledge. Model companies/organizations are expected to share their learning experiences, best practices, and success stories with other companies/organizations for multiplier effects. The program also assists NPOs in developing the ability to manage their own demonstration/model enterprises through involvement in all stages of DMP projects. The demonstration companies/organizations can support NPOs as learning hubs and sites for larger stakeholders on the application of productivity tools, techniques, and methodologies.

In 2022, three DMP projects were held in the F2F and digital modalities. Two were implemented by the NPO, Pakistan. The first was held virtually involving three demonstration companies on Productivity Enhancement through Chemical Management Systems and Environmental Management Systems (ISO 14001:2015). The demonstration companies learned about these systems from two overseas resource persons from Canada and implemented them in their factories which contributed to productivity improvement as well as safe and environmentally sustainable operation. The second project in Pakistan was held in the hybrid modality with two demonstration companies on Application of Kaizen in Micro Hydropower Turbine Manufacturing. The demonstration companies gained skills and knowledge on 5S and kaizen through lectures and consultancy by one overseas resource person from Japan. As a result, this enhanced productivity by increasing quality, reducing cost, and reducing delivery time. The third project was implemented by the DAP for two demonstration organizations on Improvement of Public Service Delivery through the Application of the Citizen-centric Approach. At the end of each project, dissemination seminars were held where the demonstration companies/organizations shared their knowledge and experiences of the projects with others in their countries.

Individual-country Observational Study Missions

The strengths and achievements of each APO member in specific areas of productivity improvement can serve as models for endeavors of other members. The APO Individual-country Observational Study Mission (IOSM) Program facilitates the exchange of experiences and best practices among members, taking advantage of their unique strengths and diversity.

By supporting study visits for a wide range of participants from one member to another, the IOSM Program enables mutual learning and exchanges of best practices to address national development needs. It also facilitates in-depth discussions on current productivity topics, effective private-sector strategies and policies, and key success factors in implementing innovative nationwide initiatives.

As pandemic-related travel restrictions were lifted in APO members, most IOSM projects in 2022 could be implemented in the F2F modality. Seven missions were organized, of which five were held F2F. The missions benefited 92 participants from five members, who exchanged experience and know-how on: Implementation of the Circular Economy (Malaysia to the ROC); Food Innovation (Singapore to Thailand); Accelerating Digitalization in Manufacturing Industry (Malaysia to the ROC); Human Capital Development for Higher Productivity (Malaysia to Singapore); Productivity and Rural Community Development (Fiji to Indonesia); Governance and Policy Innovations (the Philippines to the ROC); and Promoting Green Productivity in the Leather Industry (Pakistan to Indonesia).

Individual-country Observational Study Mission on Productivity and Rural Community Development, Indonesia

National Award Program

The APO Award Program was introduced to recognize individuals with outstanding achievements and contributions in the area of productivity at national and regional levels. It also aims to raise the visibility of the APO as the leading international organization promoting productivity. In 2021, the award procedures and conditions were revised to increase recognition within and outside member economies. The changes include conferring national awards annually and administration by NPOs.

The rejuvenated APO National Award includes changes in the mechanism to emphasize the role of NPOs as the main bodies for productivity promotion and enhancement. In 2022, as the introductory year for the National Award project, the APO received applications from Mongolia. The participation of NPOs is expected to increase in 2023 as they witness the benefits associated with the National Award Program.

The new framework provides a common guide relating to eligibility, assessment criteria, and selection procedures for NPOs. The APO Secretariat supports the program by providing technical assistance in preparation for and conferment of the awards, along with certificates, plaques, and monetary prizes for selected recipients. Financial assistance to support the local implementation costs of NPOs is also provided by the APO.

APO National Award recipients from Mongolia

Specific National Program

The APO's Specific National Program (SNP) aims to mainstream productivity enhancement in member countries' development agendas and promote the centrality of productivity in their policies. It provides tailored assistance to develop national productivity master plans and institutional development plans for NPOs including those for sectoral productivity. The SNP looks into ways to strengthen the institutional aspects of the productivity movement.

In 2022, APO members I.R. Iran, Pakistan, the Philippines, and Vietnam benefited from SNP initiatives, which covered policy advisory, institutional capacity-building, and development of master plans and frameworks for productivity and growth.

Institutional Capacity Development Plan for the VNPI

Technical Expert Services

The Technical Expert Services (TES) Program is the primary vehicle of the APO for strengthening the institutional capacities of NPOs and upgrading the technical knowledge and competencies of their staff and other productivity practitioners through tailored, intensive interventions by experts and specialists assigned to assist requesting members. Continuously enlarging the critical mass of productivity practitioners and updating their knowledge on emerging productivity tools and techniques in member economies are among the objectives of the TES Program. TES offers a broad range of topics to suit the requests and needs of each APO member and, together with other types of in-country projects, it aims to boost national productivity through the provision of real-world solutions to problems.

TES activities in 2022 were delivered virtually and F2F as travel restrictions in some members were relaxed in the second half of the year. Twenty-six TES projects for 13 APO members were implemented, facilitated by 35 resource persons. The most common topic requested was productivity tools and techniques, including emerging ones such as digitalization and smart agriculture. Sri Lanka requested four projects, while Bangladesh, Malaysia, and the Philippines implemented three projects each.

Based on information from NPOs, a total of 6,208 participants benefited from virtual TES conferences, seminars, and training courses.

International Quality and Productivity Convention 2022 in Indonesia

TES on Improvement of the Monitoring and Evaluation Process of the Ministry of Agriculture and Forestry of Turkiye

International Quality and Productivity Convention 2022 in Indonesia

Training Course on Cold Chain Systems in Agrifood SMEs in Cambodia

Vision 2025 Outreach Program

The APO developed Vision 2025 to set the direction and targets to be achieved by 2025, which will require the involvement of the entire productivity community in the region. The APO Vision 2025 Outreach (VSN) Program was launched in 2022 to enable members to proactively disseminate information on the vision and engage all stakeholders in achieving its goals.

By providing financial support of up to USD25,000 per member per year for the organization of promotional activities, the VSN Program helps raise awareness of the vision goals and targets, particularly of the main theme of "Inclusive, Innovation-led Productivity Growth," creating a sense of ownership of productivity concepts and emphasizing their continuing relevance throughout the region. The VSN Program has two biennial themes for 2022 to 2025: 1) Innovations for Higher Quality (2022–23); and 2) Inclusive Productivity (2024–25). Specific activities are decided by individual NPOs.

Eighteen members submitted proposals that were approved for implementation in 2022. Mongolia and Turkiye were the first two members to have completed the VSN Program by the end of December 2022. The promotional activities undertaken by the two countries were diverse. While Turkiye focused on the organization of the 8th National Productivity Project Awards Ceremony, Mongolia carried out activities such as the creation of animation and documentary videos on productivity and APO Vision 2025 as well as the organization of a poster competition and a hybrid conference on public participation in innovation and productivity growth. These activities under the VSN Program were expected to disseminate the spirit of "innovations for higher productivity" in the productivity communities of each country.

Institutional Program

Information and Public Relations Program

The COVID-19 pandemic and preparation for the postpandemic era emphasized the importance of the APO's Information and Public Relations (IPR) Program, not only in increasing the visibility of the APO but also in delivering relevant information to stakeholders as the leading regional organization promoting productivity. The IPR Program plays a key role in maintaining and strengthening networks with member economies as well as other international organizations and serves as a clearinghouse for productivity information. It also provides regular updates on initiatives, strategies, programs, and projects developed for the benefit of APO members.

With the pandemic continuing in 2022, the APO utilized its website and social network services (SNS) to promote its activities. SNS platforms such as Facebook, LinkedIn, Twitter, and YouTube provided opportunities to widen the APO's outreach. Publications to disseminate productivity-related information to policymakers, practitioners, NPOs, and other stakeholders were also released.

Website and SNS

In 2022, the APO launched its renewed website, which included a dynamic calendar for the convenient tracking of APO activities. New updates and publications were regularly uploaded. A refreshed Japanese-language microsite was also being readied for launch in early 2023.

The IPR Program continued to promote APO publications, self-learning courses, multicountry and in-country projects, and the Productivity Talk (P-Talk) series. The number of APO YouTube subscribers increased from 3,210 in December 2021 to 3,900 in December 2022, with a total of 39,414 views. More than 9,714 website publication downloads were recorded.

Publications

During 2022, the Secretariat published the following 19 publications.

Self-help Guide

- *Digital Readiness Assessment*

Research and Resource Papers

- *APO Productivity Databook 2022*
- *Transforming Manufacturing*
- *Smart Manufacturing: National Implementation Framework*
- *APO Productivity Outlook 2022*
- *Green Productivity and Circular Economy*
- *Innovation Readiness Assessment in Selected APO Member Economies*
- *Productivity Insights Series (12 issues)*

APO Honorary Fellows

Since 1978, the title of APO Honorary Fellow has been conferred by the Governing Body on former APO Directors, Alternate Directors, NPO Heads, Secretaries-General, or Liaison Officers in recognition of their outstanding contributions to the organization. Based on guidelines set by the APO Governing Body at its 19th Session held in 1977, five individuals were conferred the title of APO Honorary Fellow in 2022:

- Former APO Secretary-General Dr. AKP Mochtan
- Former APO Alternate Director for the ROC Jang-Hwa Leu
- Former APO Alternate Director for Indonesia Satrio Bambang Lelono
- Former NPO Head for Sri Lanka G.U.K. Algewattage
- Former APO Liaison Officer for the ROC Hsiu-Lan Lin

Information Technology

IT Program

In 2022 as the COVID-19 pandemic continued, most projects were delivered virtually, and the APO made every effort to assess and apply the latest IT technologies to cope with changes and challenges in the dynamic digital world. One of the deliverables was the online voting system used at the 64th Session of the Governing Body to select the APO Secretary-General from 2022 to 2025.

While a few projects were conducted in the face-to-face modality in the last quarter of the year as many countries eased travel restrictions, the virtual modality still offers value for money and the best combination of face-to-face and virtual modalities will be analyzed in coming years.

Strengthening the Digital Learning Program using advances in IT remained instrumental in the effective, efficient delivery of services to APO members. Technical upgrading and capacity building of staff in the Secretariat continued in 2022 in preparing for and delivering digital multicountry projects, P-Talk sessions, P-Innovator projects, and e-courses. These resulted in increases in the number of participants and enrollees in projects and views of programs on the YouTube channel. Given the proven benefits that digital technology in general brought to APO programs at a time when it was almost impossible to continue usual services to member economies, it will continue to provide opportunities and enhance inclusion by strengthening the overall Digital Learning Program in the years to come.

Enhancing the Strategic Digital Capability Initiative

The Strategic Digital Capability (SDC) Plan approved by the Governing Body in 2021 aims to upgrade and expedite the digitalization of the Secretariat over a five-year period from 2021 to 2025. The initiative for enhancing digital systems by implementing a Secretariat-wide enterprise resource planning (ERP) system under the SDC will accelerate and expand capability, integrate functions and systems, and introduce scalable solutions to improve the operations of the Secretariat and its services to APO members.

In the first phase, an integrated project management and finance and budget management system was implemented during 2022 using the SAP Business ByDesign (ByD) methodology following the solution approach of "fit to standard (F2S)." The ByD system provided a standard database-driven process environment for the APO to produce documents using fixed templates for the preparation of project notifications, project implementation plans, and letters of assignment for resource persons, which also made the process of paying suppliers simpler.

The new system is fully operational with standard functions that streamline the efficient, timely issuance of documents, which is integrated with the finance and budget system. As a data-driven system working on the F2S principle, the system reduces the need to perform manual entries. Hence, it is improving project cycles and making project and finance management more efficient.

In the second phase, a participant and resource person management system to be implemented in 2023 will be expanded to APO members. Both systems will be integrated to operate in tandem, maximizing operational efficiency, including scalability, interface with members, and future-readiness. It will add value to APO and NPO operations, which will become visible once the system is fully incorporated.

IT Infrastructure Improvement and Cybersecurity

As the pandemic waned and staff returned to the office, security settings in the Secretariat were updated and enhanced in 2022. Efforts to strengthen security will continue to protect information assets from threats while taking advantage of rapid changes in IT to support various options in styles of work.

International Cooperation

The prolonged COVID-19 pandemic remained a global challenge in international cooperation efforts, similar to the previous year. Digital platforms continued to be used for collaborations with new and existing partners and to expand the outreach of the organization.

In 2022, collaboration with ASEAN continued in the area of labor productivity, and the APO supported a research project on developing the ASEAN Labor Productivity Index. The APO also continued its collaboration with the ADBI and started a joint project to study the impact of COVID-19 on SMEs. The APO attended five ESCAP meetings, including the 9th session of the Asia-Pacific Forum on Sustainable Development held in the virtual modality.

The APO Secretary-General continued to serve on the Examination Committee for the 2022 JICA Africa Kaizen Award. The ongoing collaboration with Keio University enabled the publication of the annual *APO Productivity Databook* and database, which are flagship programs of the APO.

In 2022, under a joint project with the Korea Development Institute, the APO assisted Pakistan in developing its productivity master plan. Cooperation with the OECD in 2022 was mainly through the activities of the Global Forum on Productivity (GFP). The APO Directors of all members were invited to attend the 2022 GFP Annual Conference virtually in July, which was jointly organized with the European Commission Directorate-General for Economic and Financial Affairs with the theme Challenges for Productivity Growth in the Post COVID-19 Era.

The APO also participated in the UNIDO Annual Programme and Budget Committee session and exchanged working-level communications on common issues to explore possible collaboration in areas of common interest related to SMEs.

Evaluation of 2021 Projects

In 2022, the APO evaluated projects implemented from 1 January to 31 December 2021. Due to the pandemic, travel restrictions were imposed by all member economies, and hence the APO conducted all multicountry projects in 2021 in the virtual mode.

The change to the virtual modality also required changes in project duration, timing, and content. Training courses, workshops, and observational study missions (OSMs) were shortened from five days to three and conducted for three hours per day as in 2020. Conferences were reduced to one day from the usual three. This evaluation covered multicountry projects, self-learning e-courses, and individual-country projects.

Multicountry Projects

Seventy-six multicountry projects were implemented, comprising 20 training courses, 37 workshops, 11 conferences, and eight multicountry OSMs. A total of 2,891 participants attended these projects. Feedback from participants, resource persons, and implementing organizations was obtained through questionnaires. Evaluation questionnaires focused on the criteria of relevance, effectiveness, and efficiency in project implementation. With reference to participants' affiliations, 56.6% were from government, followed by 12.2% from academia and 8.4% from private enterprises. It was encouraging to note the increasing number of female participants in APO projects compared with the previous year. In 2020 projects, 39.3% were women, which increased to 43.4% in 2021.

The feedback from participants indicated that one-third of APO projects were highly relevant (94.0%), highly efficient (94.2%), and effective (69.5%). Analysis of the feedback showed that the most notable positive responses were on the informative presentations (95.6%), timely subjects (94.1%), and usefulness of topics (93.3%). The majority of participants (92.8%) agreed that the knowledge gained from the projects would be helpful in improving their performance, and many (91.2%) commented that implementation of the projects was well organized. Participants responded that during virtual implementation of the projects, video/audio connection was good (88.5%) and they could expand their professional networks by participating in APO projects (84.6%). They agreed that the group exercises during the online programs were effective, with a 75.5% satisfaction level, which indicates that group exercises during breakout sessions could be improved. Further, only 48.4% of participants agreed that the virtual site visits were useful, indicating room for improvement. The majority of participants gave positive feedback on the resource persons and agreed that they had demonstrated high levels of expertise, good preparation for the project, and good communication skills (96.6%, 96.4%, and 94.5%, respectively).

The feedback from participants and resource persons indicated that the APO's move to adopt the digital mode of implementing projects as a new normal activity during the pandemic was seen as productive and enriching. APO projects were relevant, effective, and efficient, with no project rated low in these three criteria. The aspects participants appreciated the most about APO digital multicountry projects were the informative presentations, timely themes, and usefulness of topics. Participants' positive learning attitudes and interactive engagement during breakout sessions were applauded by resource persons. Active involvement in group activities and knowledge-sharing sessions with high levels of interest were also positive factors. The majority of participants' work performance improved after gaining knowledge from APO projects.

For these digital multicountry projects, the most typical low points noted by participants, resource persons, and implementing organizations were short project duration and timing. Particularly for training courses, participants suggested allocating more breakout sessions for interactions among participants and with resource persons. Due to the limited time of the programs, participants were unable to quickly grasp and follow the materials presented by resource persons, and sharing such materials with participants well in advance of project commencement was suggested. Although the APO adopted the digital mode for multicountry projects during the pandemic, many factors needed to be improved including project design, knowledge-sharing sessions through country papers, and virtual site visits with more videos of successful case studies.

Monitoring participants was more challenging, although the majority of them were actively involved during all sessions. Brief evaluations of participants at the end of each day to measure their understanding of materials presented could be included for improving their attentiveness. Reflection paper submission by participants on their learning after attending projects could be added. Ground rules could be shared with all participants well in advance for improving the delivery of project content by resource persons. Online group exercises were not effective, as participants could not interact with everyone in breakout sessions, and postsession interactions were also very difficult due to different time zones. Creation of social networking groups like WhatsApp among participants and APO and NPO personnel would result in better coordination and communication among them during and after projects to continue sharing ideas.

Resource persons suggested that due to language difficulties, some participants could not interact during breakout sessions, which could be improved during the selection of participants. Coordination meetings among resource persons before project commencement would help them prepare presentation materials with more videos and avoid redundancies. More lead time for preparation and to identify the level of participants in advance as well as the ideal number of participants might yield better results. Prior engagement with participants and submission of country reports would make the sessions more effective. Participants and implementing organizations suggested that follow-up should continue either in the digital mode or face to face for more effective learning. A strong follow-up strategy could be defined by the APO to improve future projects and ensure application of the knowledge gained. Networking activities among participants and local organizers should be continued in the digital mode to give more learning opportunities and receive updates on the sustainability of projects.

Self-learning e-Courses

Self-learning e-courses are offered through the online eAPO platform on topics related to productivity tools and techniques. The platform allows learners to study at their own pace and time. Data on the number of courses conducted, number of participants registered, number who took the final exams, and number of participants who passed the final exam were collected. In 2021, 10 new self-learning e-courses were launched. The durations of courses running from pre-2017 were also extended. This is part of the strategy to strengthen the online eAPO platform.

The total number of courses open in 2021 reached 53. In 2021, the number of participants who completed the courses, defined as those taking the final exam as a percentage of those registered, decreased sharply when compared with 2019. Although the percentage of enrollees who completed the courses increased compared with 2020, there was a gap between the number registered and those who completed courses. It was encouraging to see the positive trend in the percentage of completion in 2021. It was noted that the number registered in 2021 was fewer compared with 2020, indicating slightly less interest in the courses. However, there was an increasing trend in the number of participants registered compared with 2019.

The analysis shows that the course format and content could be improved, and appropriate enhancement measures should be taken by the APO for successful completion of the courses, particularly considering the ongoing pandemic. Despite the positive feedback from participants, constant effort is necessary to create higher-quality courses to meet learners' needs. There is still room for improvement in content quality. The repackaging of the content and more interactive design should be considered for future courses. More importantly, a new strategy for digital learning is being undertaken by the APO to enhance the relevance, efficiency, and effectiveness of all e-courses including the self-learning ones.

Individual-Country Projects

Continuing from last year, due to pandemic-related travel restrictions imposed by all APO members, the APO conducted all 2021 in-country projects in the virtual mode.

In 2021, there were 67 in-country projects implemented under Bilateral Cooperation between NPOs (BCN), Certification Body Development Program (CBD), Individual-country Observational Study Missions (IOSMs), Demonstration Company Projects (DMP), Specific National Program (SNP), and Technical Expert Services (TES). There were approximately 2,458 individual and organizational beneficiaries under in-country projects. Compared with 2020, there was a decrease in the total number of beneficiaries from 5,500 participants, while more projects were held in 2021.

The feedback from NPOs and participants showed that the BCN Program continued to be a major initiative that will forge long-term relationships and collaborations among NPOs in advancing knowledge sharing and benchmarking in critical areas that enhance the productivity and competitiveness of specific sectors. In 2021, one project was implemented virtually under the BCN Program for the NPO Pakistan involving the MPC. Three delegates benefited from this project covering the topics of Industry 4.0, Business Excellence, Delivery Management Office (DMO), and Productivity and Competitiveness Development and their best practices of the MPC. According to the survey results on the project, the intended objectives were achieved. There were comments by the delegates that the program was very useful, and the learning would be applied in Pakistan. A suggestion for improvement was to increase the number of delegates to expand the impact.

The CBD Program aims to expand the role of NPOs to become APO-accredited CBs to operate productivity certification schemes. The CBD Program focuses on building up capabilities and providing opportunities to upgrade operational systems, particularly in certifying productivity professionals through compliance with international standards of practice. CBD projects for the NPOs of India, Malaysia, Mongolia, Pakistan, and Vietnam were initiated during 2020, while the CBD project of the NPOs of India, Indonesia, Mongolia, and Pakistan continued in 2021 and were joined by Turkiye. The development of the NPO of I.R. Iran as an APO-CB is continuing through technical cooperation from the MPC. As these projects are still in the implementation phase, the evaluation of each CBD project will be performed after completion of all phases.

All DMP projects were implemented in the virtual mode, and many were delayed due to the impact of the COVID-19 pandemic since they still require onsite review/assessment and handling of machinery/equipment in the field. Three IOSM projects including 41 participants were conducted in the virtual modality due to the pandemic, with an average duration of about two days. Despite the challenges of virtual IOSMs, the participants believed that the learning and information gained were useful and relevant. To strengthen the IOSM Program for enhancing mutual partnerships among APO members, all NPOs were encouraged to host missions in 2022 depending on their strengths in relevant subject areas.

Projects implemented under the SNP require engagement and ownership to create tangible impacts. The evaluation indicated that SNP projects in 2021 recorded a relatively high level of engagement of stakeholders including NPOs in the implementing countries as well as involvement of high-level officials and key strategic public and private institutions and support from top policymakers that resulted in comprehensive recommendations and policy guidance for the implementing countries. In addition to more timely execution of the plans by the implementing organizations, improvements in accuracy or details of the required data/information provided by stakeholders for the country diagnostics/analyses may be needed. Follow-up and monitoring of the recommendations are not currently integrated into the design of the projects, which is another area for improvement which would potentially expand the impact of the projects.

TES is an in-country project scheme to meet specific needs for national productivity improvement. Twenty-three TES requests were received in 2021, which were all approved after review and adjustments in the proposals in close consultation with NPOs. Three projects were carried over from 2020 due to requests for rescheduling from the implementing NPOs. The evaluation of TES projects was carried out through an online questionnaire to participants on project effectiveness and relevance. At least 80% of participants rated project effectiveness and relevance as high. This was an increase from the 2020 results of 73%. Around 86% of participants stated that project topics were timely, while 5.8% indicated the opposite. Group exercises were evaluated as effective by 80.4% of participants. Since all TES projects in 2021 were delivered digitally, this is a strength that can be cultivated further. Almost all participants (97.5%) believed that the projects would be beneficial in improving the performance of their organizations.

Digital implementation of TES projects made preparations quicker compared with the face-to-face modality, which allowed more projects, experts assigned, and participants. Despite some advantages of the digital over the face-to-face modality, effectiveness should be investigated further. The nature of TES projects usually entails onsite consultancy and visits to companies/organizations, which gives the face-to-face modality an advantage. This may be the reason behind the declining trend in the number of TES projects implemented in the past two years (29, 30, and 26 in 2019, 2020, and 2021, respectively, compared with 42 in 2017).

FINANCIAL STATEMENT

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Independent Auditor's Report

To the Governing Body of Asian Productivity Organization

Our opinion

In our opinion, Asian Productivity Organization (the "Organization")'s financial statements present fairly, in all material respects, the financial position of the Organization as at 31 December 2022, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

What we have audited

The Organization's financial statements comprise:

- the statement of financial position as at 31 December 2022;
- the statement of revenues or expenses and other comprehensive income for the year then ended;
- the statement of changes in surplus for the year then ended;
- the statement of cash flows for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing ("ISA"). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Organization in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code) and the ethical requirements that are relevant to our audit of the financial statements in Japan. We have fulfilled our other ethical responsibilities in accordance with the IESBA Code and the ethical requirements in Japan.

Other information

Management is responsible for the other information. The other information comprises the annual report (but does not include the financial statements and our auditor's report thereon), which is expected to be made available to us after the date of this auditor's report.

Our opinion on the financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other

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information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

When we read the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to management.

Responsibilities of management for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Organization's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Organization or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISA, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Organization's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Organization's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Organization to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with management regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

DocuSigned by:
PricewaterhouseCoopers Aarata LLC
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16 March 2023

ASIAN PRODUCTIVITY ORGANIZATION
STATEMENTS OF FINANCIAL POSITION
31 DECEMBER 2022 AND 31 DECEMBER 2021

(US dollars)

	2022	2021
ASSETS		
Cash and cash equivalents (Note 3)	$22,692,967	$27,980,529
Receivables (Note 4):		
Member countries	7,540,293	892,909
Others	1,328	98,899
Prepaid expenses	55,002	57,821
Deposits and other advance payments	1,082,958	1,118,262
Total current assets	31,372,548	30,148,420
Fund for severance payments (Note 11)	139,360	183,368
Property, plant and equipment (Note 5):		
Leasehold Improvement	527,181	527,181
Furniture &Fixture	169,326	169,326
Equipment	340,318	340,318
Automobile	72,935	72,935
Right of use assets (Note 13)	613,724	613,724
Accumulated depreciation	(1,232,393)	(761,099)
Construction in progress (Note 5)	0	0
Intangible assets (Note 5)	506,984	328,812
Total noncurrent assets	1,137,435	1,474,565
Total assets	$32,509,983	$31,622,985
LIABILITIES AND SURPLUS		
Accounts payable	$4,340,498	$2,903,971
Withholding tax and social insurance	32,359	5,173
Lease liabilities - current (Note 13)	51,787	291,848
Other current liabilities (Note 8)	4,881,767	6,284,600
Total current liabilities	9,306,411	9,485,592
Accrued annual leave (Note 6)	508,880	724,708
Liability for severance payments (Note 12)	1,557,478	2,213,254
Lease liabilities - noncurrent (Note 13)	0	58,992
Other noncurrent liabilities	119,591	119,591
Total noncurrent liabilities	2,185,948	3,116,544
Total liabilities	11,492,359	12,602,136
Surplus:		
Appropriated for		
Working capital fund (Note 15)	7,000,000	7,000,000
Contingency fund (Note 2)	500,000	500,000
Continuing projects	4,438,134	5,286,778
Unappropriated surplus (Note 15)	9,040,342	6,286,109
Accumulated other comprehensive income (Note 12)	39,148	(52,038)
Total surplus	21,017,623	19,020,849
Total liabilities and surplus	$32,509,983	$31,622,985

The accompanying notes are integral part of these statements.

ASIAN PRODUCTIVITY ORGANIZATION
STATEMENTS OF REVENUES OR EXPENSES AND OTHER COMPREHENSIVE INCOME
YEARS ENDED 31 DECEMBER 2022 AND 2021

(US dollars)

	2022	2021
Revenues:		
Membership contributions (Note 7)	$11,986,035	$11,986,035
Special cash grants (Note 8)	1,667,515	2,789,857
Mandatory contribution for rent (Note 9)	205,411	249,218
Participation by member countries	350	710
Miscellaneous Revenue	142,966	38,028
Total revenues	14,002,277	15,063,847
Expenses:		
Projects		
Current year's project costs:		
APO share Current	2,910,605	1,838,936
Subtotal	2,910,605	1,838,936
Prior years' continuing project costs:		
APO share Continue	2,953,274	4,734,105
Subtotal	2,953,274	4,734,105
Allocation to project costs from		
Administration expenses (Note 10)	2,322,125	3,478,199
Total	8,186,003	10,051,240
Administration		
Staff expenses (Note 6, 12)	4,113,695	5,504,730
Office maintenance	33,637	26,898
Depreciation expenses (Note 5, 13)	335,823	334,855
Operations	126,259	120,818
Miscellaneous	160,955	218,623
Allocation to project costs (Note 10)	(2,322,125)	(3,478,199)
Total	2,448,245	2,727,724
Exchange (gain)/loss	754,657	847,615
Increase (decrease) in loss allowance (Note 4)	712,897	2,215,667
Total	1,467,554	3,063,282
Total expenses	12,101,802	15,842,246
Net adjustment (gain)/loss for closed projects (Note 14)	(5,115)	(21,327)
Excess of revenues over expenses (expenses over revenues)	1,905,589	(757,071)
Other comprehensive income (loss):		
Pension liability adjustments (Note 12)	91,186	97,452
Total other comprehensive income (loss)	91,186	97,452
Total comprehensive income (loss)	$1,996,775	($659,619)

The accompanying notes are integral part of these statements.

ASIAN PRODUCTIVITY ORGANIZATION

STATEMENTS OF CHANGES IN SURPLUS

YEARS ENDED 31 DECEMBER 2022 AND 2021

(US dollars)

	Appropriated for					
	Working capital fund	Contingency fund	Continuing projects	Unappropriated	Accumulated other comprehensive income	Total
2021						
Surplus as of 1 January 2021	$7,000,000	$500,000	$5,670,344	$6,659,614	($149,490)	$19,680,468
Excess of revenues over expenses (expenses over revenues)	-		-	(757,071)	-	(757,071)
Transfer to continuing projects		-	(383,566)	383,566	-	-
Pension liability adjustment (Note 12)	-	-	-	-	97,452	97,452
Surplus at end of year	$7,000,000	$500,000	$5,286,778	$6,286,109	($52,038)	$19,020,849
2022						
Excess of revenues over expenses	-		-	1,905,589	-	1,905,589
Transfer to continuing projects		-	(848,644)	848,644	-	-
Pension liability adjustment (Note 12)	-	-	-	-	91,186	91,186
Surplus at end of year	$7,000,000	$500,000	$4,438,134	$9,040,342	$39,148	$21,017,623

The accompanying notes are integral part of these statements.

ASIAN PRODUCTIVITY ORGANIZATION
STATEMENTS OF CASH FLOWS
YEARS ENDED 31 DECEMBER 2022 AND 2021

(US dollars)

	2022	2021
Cash Flows from Operating Activities:		
Excess of revenues over expenses (expenses over revenues)	$1,905,589	($757,071)
Adjustments:		
Depreciation and amortization	628,211	602,034
Provision for losses on receivables	712,897	2,215,667
Interest income	(139,680)	(33,375)
Exchange variance	1,001,797	1,024,144
Decrease (increase) in receivables from member countries	(7,360,273)	1,829,442
Decrease (increase) in receivables - others	97,563	566,556
Decrease (increase) in other current assets	38,123	(1,001,447)
Decrease (increase) in funds for severance payments	44,008	18,338
Increase (decrease) in accounts payable	1,434,784	804,174
Increase (decrease) in other liabilities	(1,375,647)	(3,296,060)
Increase (decrease) in accrued annual leave	(215,828)	(55,187)
Increase (decrease) in liability for severance payments	(564,590)	(245,118)
Subtotal	(3,793,047)	1,672,099
Interest received	139,680	33,375
Net cash flow from operating activities	(3,653,367)	1,705,473
Cash Flows from Investing Activities:		
Acquisition for PP&E and intangible assets (Note 5)	(333,344)	(89,036)
Net cash flow from investing activities	(333,344)	(89,036)
Cash Flows from Financing Activities:		
Payments for lease liabilities (Note 13)	(291,848)	(311,609)
Net cash flow from financing activities	(291,848)	(311,609)
Effect of exchange rate changes on cash and cash equivalents	(1,009,002)	(1,041,284)
Net increase (decrease) in cash and cash equivalents	(5,287,561)	263,543
Cash and cash equivalents at beginning of year	27,980,529	27,716,985
Cash and cash equivalents at end of year (Note 3)	$ 22,692,967	$ 27,980,529

The accompanying notes are integral part of these statements.

ASIAN PRODUCTIVITY ORGANIZATION

NOTES TO FINANCIAL STATEMENTS

1. Organization, business, and source of funding

The Asian Productivity Organization (the “Organization” or “APO”) is an intergovernmental regional organization established in 1961 by several governments in Asia with its headquarters in 1-24-1 Hongo, Bunkyo-ku, Tokyo, Japan, and continues to operate from this location. The Organization is nonpolitical, nonprofit making, and nondiscriminatory.

The objective of the Organization is to increase productivity and thereby accelerate economic development in Asia through mutual cooperation among member countries. To fulfill its objective, the Organization institutes programs for the development of productivity, provides information and advice for productivity improvement, and promotes and disseminates modern productivity skills and techniques in the agriculture, industry, and service sectors.

The Organization membership is open to all Asian and Pacific governments that are members of the United Nations Economic and Social Commission for Asia and the Pacific. From 1 July 1997, the Hong Kong Productivity Council was instructed to cease all APO activities when sovereignty was transferred to the People’s Republic of China.

The Organization performs activities in cooperation with national productivity organizations (NPOs) and other international organizations. NPOs in member countries that deal with productivity activities at the national level act as implementing agencies for the Organization’s projects and nominate participants from their countries to attend those projects.

The budget of the Organization is composed of the budget covering the program of action of the Organization and staff, administrative, and nonproject expenses. The Governing Body, which is the supreme organ of the Organization, meets once a year to decide on policy matters concerning program and budget, finances, and membership. The sources of the funding include:

a) Annual membership contributions based on gross national income;
b) Special cash grants given by member governments and external assistance from cooperating agencies and institutions;
c) Mandatory contribution for rent given by the host government; and
d) Miscellaneous income such as proceeds from interest income.

2. Significant accounting policies

(1) Basis of preparation of accompanying financial statements

a) Compliance with IFRS
The financial statements of the Organization are prepared based on the Convention and the Financial Regulations established by the Organization, which is in line with International Financial Reporting Standards ("IFRS").

b) Historical cost conversion
The financial statements of the Organization are prepared on a historical cost basis, except for certain financial assets and liabilities which are measured at fair value.

c) Changes in accounting policies
New standards and interpretations are not yet adopted. Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2022 reporting period and have not been adopted early by the Organization. These standards are not expected to have material impact of the Organization in the current or future reporting periods and on foreseeable future transactions.

d) Authorization
The financial statements were authorized by the APO Secretary-General for issue on 16 March 2023.

(2) Receivables

Receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, less loss allowance.

(3) Property, plant and equipment, intangible assets, and right-of-use assets

Property, plant and equipment consist of the leasehold improvements including contra-asset-retirement-obligation, furniture and fixtures, equipment, and automobile. Intangible assets include Software. The Organization books on the statements of financial position for the items whose acquisition cost amount is significant.

Depreciation is calculated to write off the cost of items of property, plant and equipment and intangible assets using the straight-line method over their estimated useful lives, and is recognized in profit or loss.

The estimated useful lives of the property, plant and equipment and intangible assets are as follows:

- Leasehold improvements: 5–8 years
- Furniture and fixtures: 5–8 years
- Equipment: 3–8 years
- Automobile: 6 years
- Software: 5 years

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Depreciation methods and useful lives are reviewed at each reporting date and adjusted if appropriate.

(4) Fund for severance payments

The fund for severance payments includes an insurance endowment fund and is stated at fair value. The fair values of the fund for severance payments are estimated based on values quoted by financial institution.
IFRS 7 "Financial Instruments—Disclosures" defines fair value and establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The three levels of the fair value hierarchy are as follows:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities
Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
Level 3: Unobservable inputs for the asset or liability
The insurance endowment fund held by the Organization is classified into Level 2 assets.

(5) Liability for severance payments

Staff members terminating their employment with the Organization are entitled, under most circumstances, to severance payments based upon the monthly basic pay at the time of termination of employment and years of service. The cost of the severance payments is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at the end of each reporting period. Remeasurements of the Organization's defined benefit obligation, which comprise actuarial gains and losses are recognized immediately in other comprehensive income.

(6) Accrued annual leave

Based on Rule 5.01 of APO Staff Regulation V, annual leave is accumulated up to 90 days, which does not expire until leaving the Organization. In 2022, the Organization recorded accrued annual leave of 70 days (69 days in 2021) for staff members who had annual leave of more than 70 days as a liability, taking into consideration both the rule that an annual leave up to 60 days is paid by a sum of money equivalent to their salary for the period of the accrued annual leave upon leaving the Organization and the possible utilization of unused accrued leave in excess of 60 days before leaving the Organization.

(7) Revenues

Major sources of revenues of the Organization are membership contributions and special cash grants, among others. Membership contributions, which are approved by the Session of the Governing Body (GBM), are recognized as revenues on 1 January of each fiscal year. Special cash grants are recognized as revenues over the period necessary to match them with the costs that they are intended to compensate.

(8) Appropriation for working capital fund

Based on Regulation 7 of the Financial Regulations, a working capital fund is established from which advances may be made to finance budgetary appropriations to the extent that this is necessary in anticipation of pledged but unpaid contributions. In 2012, the Organization set up a contingency fund amounting to $500,000 as decided by the 54th GBM.

(9) Appropriation for continuing projects

The outstanding balance of commitments for continuing projects at year-end, which has been funded mainly from membership contributions, is appropriated for continuing projects. The balance for continuing projects funded from special cash grants includes unspent balances of special cash grants, which are balances generated from completion of some projects prior to the year-end being reallocated for the following year's projects in the same programs.

(10) Translation of foreign currencies

For the purpose of the financial statements, the results and financial position of the Organization are expressed in US dollars, which is the functional currency of the Organization and presentation currency for the financial statements. The Organization's books of account are maintained both in Japanese yen and US dollars. Assets and liabilities denominated in Japanese yen are translated into US dollars at the appropriate exchange rate on the statements of financial position date. For revenue and expense accounts, average rates for the prior month of the transactions are applied. Revenue and expense accounts of other currencies except Japanese yen are translated into US dollars at the rates prevailing at the time of the transactions. The resulting unrealized gain/loss from translation is included in exchange gain/loss in the statement of revenues or expenses and other comprehensive income.

(11) Taxes

The Organization is exempt from direct taxes on assets or income and from customs duties.

(12) Use of estimates

The Organization makes estimates and assumptions to prepare the financial statements. Such estimates and assumptions affect the reported amounts of assets, liabilities and expenses. Actual results could differ from those estimates.

3. Cash and cash equivalents

Cash and cash equivalents include all highly liquid investments, generally with original maturities of three months or less, which are readily convertible to known amounts of cash and are so near maturity that they present insignificant risk of changes in value because of changes in interest rates.

Cash and cash equivalents	2022	2021
Current Deposits	$11,787,700	$16,898,976
Time Deposits	10,905,267	11,081,552
Total	$22,692,967	$27,980,529

4. Receivables of membership contributions, participating country expenses, and others

Receivables	2022	2021
Membership contributions	$14,495,180	$7,134,907
Participating country expenses	6,810	7,092
Others	885	138,615
Loss allowance	(6,961,254)	(6,288,806)
	$7,541,621	$991,808

Receivables represent uncollected revenue from membership contributions, participating country expenses, and others. Membership contributions approved by the GBM are to be paid to the Organization from each member as soon as possible after the receipt of such advice according to Regulation 6 of the Financial Regulations. Loss allowance of $6,961,254 comprises $6,961,254 of the receivables overdue for one year and longer including $6,954,887 for membership contributions and $6,367 for participating country expenses.

The Organization has receivables that are subject to the expected credit loss model and applies the IFRS 9 simplified approach to measuring expected credit loss which uses lifetime expected loss allowance for the receivables.

31 December 2022	Current	More than 1 year overdue	Total
Expected loss rate	0%	100%	
Gross carrying amount - receivables	$7,541,621	$6,961,254	$14,502,875
Loss allowance	-	$6,961,254	$6,961,254

31 December 2021	Current	More than 1 year overdue	Total
Expected loss rate	0%	100%	
Gross carrying amount - receivables	$991,808	$6,288,806	$7,280,614
Loss allowance	-	$6,288,806	$6,288,806

The closing loss allowance for the years ended 31 December 2022 and 2021 reconcile to the opening loss allowance as follows:

	2022	2021
Opening loss allowance as of 1 January	$6,288,806	$4,073,140
Increase in loss allowance recognized in profit or loss during the year	712,897	2,215,667
Advance payment written off during the year as uncollectable	(40,450)	
Unused amount reversed	-	-
Closing loss allowance as of 31 December	$6,961,254	$6,288,806

Loss allowance for the receivables is maintained for potential credit losses based upon the assessment of the receivables aging, taking into consideration any circumstances regarding member's inability to meet its financial obligations. The Organization's exposure to credit risk is influenced mainly by the individual characteristics of each member country. The maximum exposure to credit risk is represented by the carrying amount of receivables. The uncollectable advance payment in the amount of $40,450 was written off with the endorsement in the 64th Governing Body Meeting.

5. Property, plant and equipment and intangible assets

Movements in property, plant and equipment and intangible assets for the year ended 31 December 2022 were as follows:

	Leasehold Improvement	Furniture & Fixture	Equipment	Automobile	Total	Construction in Progress	Software
Acquisition Cost							
On 1 January 2022	$527,181	$169,326	$340,318	$72,935	$1,109,760	$0	$713,775
Additions							335,088
Disposals							
Transfer							
On 31 December 2022	527,181	169,326	340,318	72,935	1,109,760		1,048,862
Accumulated depreciation							
On 1 January 2022	218,262	70,307	153,849	72,935	515,354		384,962
Depreciation	50,949	33,865	79,619		164,433		156,916
Disposals							
On 31 December 2022	269,211	104,172	233,468	72,935	679,787		541,878
Net Book value							
On 1 January 2022	308,919	99,018	186,468		594,405		328,812
On 31 December 2022	$257,970	$65,153	$106,849	$0	$429,973	$0	$506,984

The total depreciation amount of $321,348 for 2022 was recognized, including $229,996 as project costs and $91,352 as administration expenses.

Movements in property, plant and equipment and intangible assets for the year ended 31 December 2021 were as follows:

	Leasehold Improvement	Furniture & Fixture	Equipment	Automobile	Total	Construction in Progress	Software
Acquisition Cost							
On 1 January 2021	$527,181	$169,326	$320,617	$72,935	$1,090,059	$0	$646,149
Additions			21,410		21,410		67,626
Disposals			(1,710)		(1,710)		
Transfer							
On 31 December 2021	527,181	169,326	340,318	72,935	1,109,760		713,775
Accumulated depreciation							
On 1 January 2021	167,313	36,442	77,809	72,935	354,500		252,354
Depreciation	50,949	33,865	77,750		162,564		132,608
Disposals			(1,710)		(1,710)		
On 31 December 2021	218,262	70,307	153,849	72,935	515,354		384,962
Net Book value							
On 1 January 2021	359,868	132,883	242,808		735,559		393,795
On 31 December 2021	$308,919	$99,018	$186,468	$0	$594,405	$0	$328,812

The total depreciation amount of $295,172 for 2021 was recognized, including $204,788 as project costs and $90,384 as administration expenses.

6. Accrued annual leave

Movements in accrued annual leave for the years ended 31 December 2022 and 2021 were as follows:

	2022	2021
On 1 January	$724,708	$779,895
Additional accrual during the year	67,492	163,849
Payments made during the year	(155,380)	(140,820)
Reclassified to payable	(37,231)	0
Foreign exchange movements	(90,710)	(78,216)
On 31 December	$508,880	$724,708

7. Membership contributions

The apportionment of total membership contributions for 2021/2022 was based on the membership contribution formula based on the six-year average GNI as approved first by the 61th GBM held in April 2019. After the admission of Turkey in 2020 and its membership contribution, the adjustments for the apportionment were incorporated in membership contributions for 2021. There are no unfulfilled conditions or other contingencies attaching to these contributions.

8. Special cash grants

Special cash grants are used for specific programs and other administrative expenses for which member governments are encouraged to cooperate with the Organization in addition to their membership contributions. There are no unfulfilled conditions or other contingencies attaching to these grants. The Organization will recognize special cash grants received from the Government of Japan as revenues over the period necessary to match them with the costs that they are intended to compensate. Unrecognized revenue balances for the years ended 31 December 2022 and 2021 were as below, which were included in other current liabilities.

	2022	2021
Unrecognized revenue on 1 January	$6,223,395	$8,809,614
Grants received during the year	274,722	203,638
Revenue recognized during the year	(1,667,515)	(2,789,857)
Unrecognized revenue on 31 December	$4,830,602	$6,223,395

9. Mandatory contribution for rent

The 54th GBM held in April 2012 decided that the cost of the annual rent for the APO Secretariat Office from 2013 shall be borne by the host government, as a mandatory contribution of the host government, distinct and separate from its annual membership contribution to the APO.

10. Allocation to project costs

The Organization allocated administration expenses which are directly or indirectly related to project activities to project costs. Allocation to project costs includes the staff expenses of program directorate.

11. Fund for severance payments

In 2001, the Organization purchased the insurance for employees as a fund for severance payments, of which the beneficiary is the Organization. Net gains on the fund for the insurance endowment fund for the years ended 31 December 2022 and 2021 were $2,210 and $2,757, respectively, and were included in miscellaneous revenues.

12. Liability for severance payments

For the purposes of the actuarial valuations, the Organization used the discount rate of 0.88% per annum for the year ended 31 December 2022 and 0.37% for the year ended 31 December 2021. The expected rate of salary increases was applied in determining the projected benefit obligation and the expected rate was compiled from data of employee's basis salary.

Amounts recognized in profit or loss in respect of the defined benefit plan were as follows:

	2022	2021
Current service cost	$267,304	$361,333
Interest on obligation	6,627	8,706
Net periodic pension cost	$273,931	$370,039

Movements in the present value of the defined benefit obligation in the current period and the amount included in the statements of financial positions arising from the Organization's obligation in respect of its defined benefit plan were as follows:

	2022	2021
Opening defined benefit obligation	$2,213,254	$2,555,824
Current service cost	267,304	361,333
Interest cost	6,627	8,706
Remeasurements (actual gain/loss)	(91,186)	(97,452)
Payments made during the year	(330,205)	(364,180)
Reclassified to payable	(207,066)	-
Foreign currency translation adjustments	(301,250)	(250,977)
Closing defined benefit obligation	$1,557,478	$2,213,254

13. Leases

Movements in the right-of use assets for the year ended 31 December 2022 were as follows:

	Office building	Equipment	Total
Right-of-use assets on 1 January 2022	$613,724	$0	$613,724
Additions	-	-	-
Lease contract terminations	-	-	-
Right-of-use assets on 31 December 2022	$613,724	$0	$613,724
Accumulated depreciation on 1 January 2022	$245,744	$0	$254,744
Depreciation	306,862	-	306,862
Lease contract terminations	-	-	-
Accumulated depreciation on 31 December 2022	$552,606	$0	$552,606

The depreciation of $306,862 includes $62,391 recorded as project expenses and $244,471 as administration expenses.

Movements in the right-of use assets for the year ended 31 December 2021 were as follows:

	Office building	Equipment	Total
Right-of-use assets on 1 January 2021	$613,724	$0	$613,724
Additions	488,942	-	488,942
Lease contract terminations	(488,942)	-	(488,942)
Right-of-use assets on 31 December 2021	$613,724	$0	$613,724
Accumulated depreciation on 1 January 2021	$427,824	$0	$427,824
Depreciation	306,862	-	306,862
Lease contract terminations	(488,942)	-	(488,942)
Accumulated depreciation on 31 December 2021	$245,744	$0	$245,744

The depreciation of $306,862 includes $62,391 recorded as project expenses and $244,471 as administration expenses.

The lease liabilities as of 31 December 2022 and 2021, by maturity were as follows:

Lease liabilities by maturity	2022	2021
Less than one year	$51,787	$291,848
Between one and two years	-	58,992
Between two and three years	-	-
Between three and four years	-	-
Between four and five years	-	-
After five years	-	-
Total lease liabilities	$51,787	$350,840
Less current portion of lease liabilities	51,787	291,848
Non-current portion of lease liabilities	$0	$58,992

The following table provides additional disclosures related to right-of-use assets and lease liabilities:

	2022	2021
Expenses on short-term leases	$0	$0
Expenses on low-value leases	4,239	4,970
Payments of lease liabilities	291,848	311,609

14. Net adjustment for closed projects

Adjusted revenues and expenses attributed to projects that have already been closed prior to this financial year have been recorded in the account of revenues and expenses retroactive year.

	2022	2021
Revenues	$0	$0
Expenses	(5,115)	(21,327)
Net adjustment for closed projects	($5,115)	($21,327)

15. Unappropriated surplus

The 62nd GBM held in June 2020 decided to increase the working capital amount by USD1,000,000 to USD7,000,000. The 63rd GBM held in June 2021 approved $1,218,772 by using unappropriated surplus to fund the 2022 preliminary budget.

16. Related party transactions

Key management personnel compensations for 2022 and 2021 were as follows:

	2022	2021
Short-term employee benefits	$178,874	$211,546
Annual leave	25,870	6,445
Severance payment	40,093	-
	$244,837	$217,991

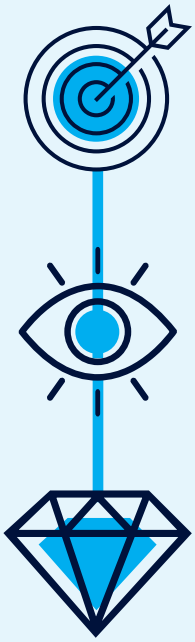
About the APO

About the APO

The Asian Productivity Organization (APO) is a regional intergovernmental organization dedicated to improving productivity in the Asia-Pacific region. It was established in 1961 with eight founding members and currently comprises the 21 member economies of Bangladesh, Cambodia, the Republic of China, Fiji, Hong Kong, India, Indonesia, Islamic Republic of Iran, Japan, the Republic of Korea, Lao PDR, Malaysia, Mongolia, Nepal, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand, Turkiye, and Vietnam.

With more than six decades of contributions to improving productivity in the region, the APO's activities involve fostering economic development through knowledge sharing, capacity building, and mutual cooperation among National Productivity Organizations (NPOs), international organizations, experts from the public and private sectors, and academia.

The APO Secretariat is located in Tokyo, Japan, headed by a Secretary-General.



Mission

Contribute to the sustainable socioeconomic development of Asia and the Pacific through enhancing productivity.

Vision 2025

Inclusive, innovation-led productivity growth in the Asia-Pacific.

Goals

Sustained productivity growth, robust innovation ecosystems, and inclusive engagement and shared prosperity.

Emphases

Centrality of Productivity

The APO places productivity at center stage, ensuring that higher productivity receives top priority in national development agendas. This means putting productivity in the driver's seat and recognizing it as the core strength propelling a country's growth.

Inclusive Productivity

The APO encourages all sectors of the community to participate in and contribute to productivity improvement efforts, including those with differing abilities. Inclusive productivity ensures that no one is left behind and that the productivity movement is a broad-based effort supported by all.

Innovation-driven Productivity

The APO addresses emerging challenges and opportunities brought about by new-generation digital technologies and the ongoing Industrial Revolution 4.0, tapping them as sources of innovation and new drivers to boost productivity.

Green Productivity

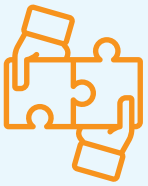
The APO's Green Productivity (GP) Program enhances productivity and simultaneously reduces the negative impacts of economic development on the environment. After three decades of the GP journey, the APO is repositioning GP by upgrading its techniques and methodologies, broadening its scope, and building synergy with global efforts to mitigate the effects of climate change.

Linkage with the SDGs

The APO contributes to meeting the UN SDGs, particularly Goals 2, 8, 9, 12, and 17. Linkages with the SDGs also enable the APO to collaborate with other international organizations in addressing common global concerns.

Key Roles

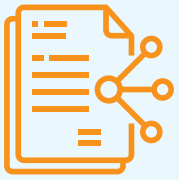
Think Tank



Catalyst

Regional Adviser

Institution Builder



Clearinghouse for Productivity Information

Programs

Multicountry

The Multicountry Program provides practical training, promotes knowledge development, and shares best practices and innovations among diverse groups of productivity stakeholders from all APO members. The activities include training courses, workshops, conferences, and observational study missions covering the industry, service, agriculture, and public sectors.

Research

The research activities of the APO cover in-depth studies involving the collection and analysis of data to address specific productivity-related issues in member economies. They also provide recommendations and proposals that become the basis of project formulation under the Multicountry and In-country Programs. In addition, assessment of needs and expectations of member economies is part of research activity.

Digital Learning

The Digital Learning Program addresses the growing demand for productivity training and skill development by offering a flexible learning experience that accommodates individual schedules and preferences. Accessible from any location, the APO's productivity-centered e-courses allows learners to progress at their own pace. These courses are available to everyone without cost, and certificates are issued upon fulfillment of the course requirements.

In-country

The In-country Program offers tailored activities to support NPOs by strengthening their ability in spearheading the productivity movement and disseminating productivity know-how, techniques, and tools across APO members. The program is also extended to institutions and organizations of APO members when requested by NPOs and comprises the following initiatives:

- Bilateral Cooperation between NPOs
- Centers of Excellence
- Certification Body Development
- Development of Demonstration Companies
- National Awards
- Observational Study Missions
- Specific National Program
- Technical Expert Services
- Vision 2025 Outreach

International Cooperation

The APO partners with governments, international organizations, universities, and professional associations to build synergy and complementarity, multiplying the impacts and benefits of productivity initiatives for the region and beyond.

APO Directors, Alternate Directors, NPO Heads, and Liaison Officers

(As of 31 December 2022)

APO Chair

Mr. Phork Sovanrith
APO Director for Cambodia

APO First Vice Chair

Mr. Sheng-Hsiung Hsu
APO Director for the ROC

APO Second Vice Chair

Mr. Osea Naitura Cawaru
APO Director for Fiji

BANGLADESH

Director
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Secretary, Ministry of Industries

Alternate Director and NPO Head
Mr. Muhammad Mesbahul Alam
Director General (Additional Secretary), National Productivity Organisation, Ministry of Industries

Liaison Officer
Mr. Muhammad Ariffuzzaman
Senior Research Officer, National Productivity Organisation, Ministry of Industries

CAMBODIA

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Secretary of State, Ministry of Industry, Science, Technology and Innovation

Alternate Director
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Under Secretary of State, Ministry of Industry, Science, Technology and Innovation

NPO Head
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Director, National Productivity Centre of Cambodia, Ministry of Industry, Science, Technology and Innovation

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Chairman, China Productivity Center

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NPO Head
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President, China Productivity Center

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Manager, APO Affairs Department, China Productivity Center

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Liaison Officer
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Chairman, Hong Kong Productivity Council

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Executive Director, Hong Kong Productivity Council

Liaison Officer
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Manager, Administration and Development Division, Hong Kong Productivity Council

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Alternate Director and NPO Head
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Director General,
National Productivity Council

Liaison Officer
Mr. K.D. Bhardwaj
Regional Director & Group Head (International Services), National Productivity Council

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Deputy Director General, Directorate of Productivity Development, Directorate General for Vocational Training and Productivity Development, Ministry of Manpower of the Republic of Indonesia

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Director for Productivity Development, Directorate for Productivity Development, Ministry of Manpower of the Republic of Indonesia

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Associate Professor (Iran University of Science and Technology), National Productivity Organization of Islamic Republic of Iran

Alternate Director
Not Designated

Liaison Officer
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Assistant Minister and Director-General, International Cooperation Bureau, Ministry of Foreign Affairs

Alternate Director
Mr. Jun Ishimaru
Director, Country Assitance Planning Division I, International Cooperation Bureau, Ministry of Foreign Affairs

NPO Head
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President, Japan Productivity Center

Liaison Officer
Ms. Misaki Matsushita
Project Manager, International Cooperation Department, Japan Productivity Center

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Director and NPO Head
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Chairman and Chief Executive Officer, Korea Productivity Center

Alternate Director
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Director General for Industrial Policy, Ministry of Trade, Industry and Energy

Liaison Officer
Mr. Taiho Kang
Director, International Cooperation Department, Korea Productivity Center

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Director General, Department of Small and Medium Enterprise Promotion, Lao National Productivity Organization, Ministry of Industry and Commerce

Alternate Director
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Liaison Officer
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Director of Productivity Division, Department of Small and Medium Enterprise Promotion, Lao National Productivity Organization, Ministry of Industry and Commerce

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Chairman, Malaysia Productivity Corporation

Alternate Director and NPO Head
Dato' Abdul Latif Bin Haji Abu Seman
Director General, Malaysia Productivity Corporation

Liaison Officer
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Assistant Manager, Corporate and Planning Division, Malaysia Productivity Corporation

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Director and NPO Head
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Chairman and Executive Director, Mongolian Productivity Organization

Alternate Director
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Executive Director, Human Development, Research and Training Center

Liaison Officer
Mrs. Batbileg Tsagaan
Deputy Director, Mongolian Productivity Organization

NEPAL

Director
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Secretary, Ministry of Industry, Commerce and Supplies

Alternate Director
Mr. Jiblal Bhusal
Joint Secretary (Division Chief: Planning, Monitoring and Evaluation Division), Ministry of Industry, Commerce and Supplies

NPO Head
Not Designated

Liaison Officer
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Research Officer/Consultant, National Productivity and Economic Development Centre

PAKISTAN

Director
Mr. Imdadullah Bosal
Secretary, Ministry of Industries and Production

Alternate Director
Flt. Lt. (Retd.) Iftikhar Ali Sahoo
Additional Secretary-I, Ministry of Industries and Production

NPO Head and Liaison Officer
Mr. Muhammad Alamgir Chaudhry
Chief Executive Officer, National Productivity Organization (NPO Pakistan)

PHILIPPINES

Director
Not Designated

Alternate Director and NPO Head
Mr. Engelbert C. Caronan, Jr.
President and CEO, Development Academy of the Philippines

Liaison Officer
Mr. Armand Tristan R. Suratos
Head, APO/DAP Secretariat, Development Academy of the Philippines

SINGAPORE

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Ms. Joanne Tan
Assistant Chief Executive Officer, Capability Programmes and Planning, Enterprise Singapore

Alternate Director
Ms. Christophane Foo
Chief Human Capital Officer, Human Capital, Enterprise Singapore

NPO Head
Mr. Michael Tan
Chief Executive Officer, Singapore Productivity Centre

Liaison Officer
Ms. Sim Siling
Deputy Director, NPO and Special Project, Singapore Productivity Centre

SRI LANKA

Director
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Secretary, Ministry of Labour and Foreign Employment

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Senior Officer, International Cooperation Department, Directorate for Standards, Metrology and Quality

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APO 2022 Projects at a Glance

198 projects

7,013 participants attended APO projects

552 experts assigned to APO projects

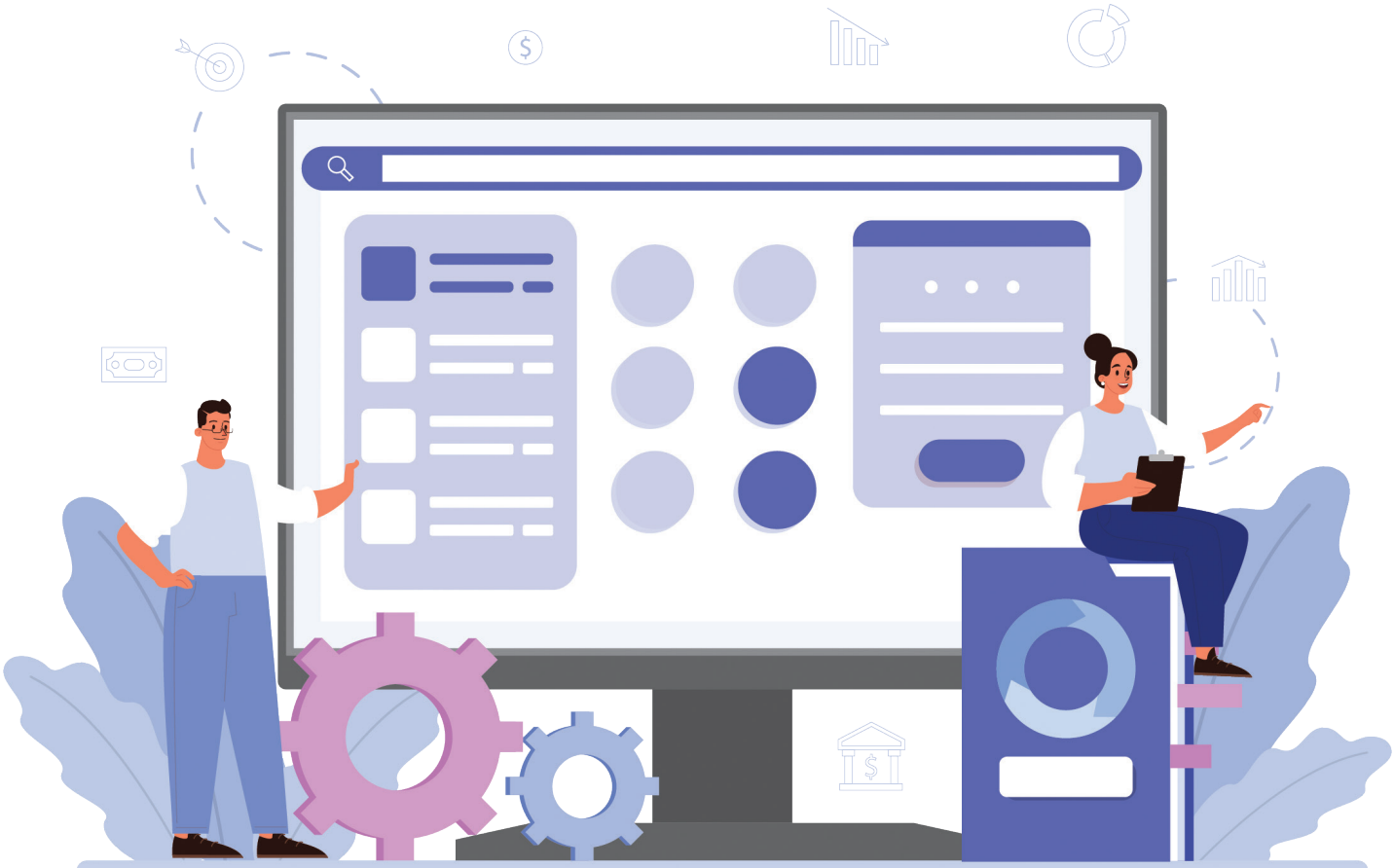
APPENDICES

Appendix 1:
List of 2022 Projects

In 2022, the number of projects APO conducted totalled 198 (107 projects had been completed and 91 were in progress as of 31 December 2022), with 7,013 participants. A total of 552 resource persons facilitated these projects.

APO Projects in 2022

TYPE OF PROJECTS	PROJECTS		PARTICIPANTS		RESOURCE PERSONS	
	COMPLETED	ONGOING	COMPLETED	ONGOING	COMPLETED	ONGOING
Multicountry Projects	55	0	2,061	0	208	6
Individual-country Projects	47	2	244	51	67	5
Research Projects	5	22	150	80	47	134
Self-learning e-Courses (Released in 2022)	0	14	571	0	0	14
Self-learning e-Courses (Continued)	0	53	3,856	0	0	71
Subtotal	**107**	**91**	**6,882**	**131**	**322**	**230**
Total	**198**		**7,013**		**552**	



Centrality of Productivity

Smart Transformation

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Workshop on the Internet of Things in Agriculture and Food Supply Chain Management	APO Secretariat	48	3
Workshop on Customer Management Experience Using Data Analytics	Singapore	35	4
Training Course on New Technology for Human Resources Management in the Public Sector	APO Secretariat	39	2
Multicountry Observational Study Mission on Innovative Smart Farming Models for Agriculture 4.0	Turkiye	47	2
National Workshop on Advanced Greenhouse Horticulture	Thailand	68	1
Training Course on Advanced Internet of Things Applications for Smart Manufacturing	ROC	40	5
Training Course on Innovative Approaches in Aquaculture	Turkiye	31	3
Workshop on Enhancing Service-sector Productivity with Cloud Solutions	ROC	34	3
Workshop on Business Models for the Recovery Phase in the Service Industry	Singapore	26	4
Training Course on Food Safety Management Systems: Advanced	Bangladesh	45	4
Workshop on Efficient Food Storage Technologies and Management Practices	India	50	4
Training Course on Data Analysis for Smart Manufacturing	ROC	40	4
Training Course on Cold Chain Systems in Agrifood SMEs	Cambodia	21	2
Training Course on Strategic Management for Public-sector Productivity Enhancement	Sri Lanka	42	3
Multicountry Observational Study Mission on Applications of Alternative Energy Sources for Decarbonization	ROC	38	5
Development of Public-sector Productivity Specialists	Philippines	43	4

Quality of the Workforce

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Workshop on Enhancing Employee Productivity in the Digital Workplace	Thailand	56	3
Development of APO-certified Productivity Specialists	Malaysia	53	3
Workshop on Talent Development for the Future of Work	Thailand	48	5
Development of Public-sector Productivity Specialists	Philippines	45	3
Training Course on Smart Sustainability Assessment Tools and Techniques for Improving Agrifood Industries	Cambodia	50	3
Development of APO-certified Productivity Specialists	Malaysia	34	4
Training Course on Digitization of SMEs in Manufacturing Sector	Japan	21	3
Training Course on Foresight for Public-sector Organizations	Sri Lanka	39	2

Green Productivity

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Workshop on Climate-smart Agriculture Techniques and Practices	Philippines	38	3
Training Course on Green Productivity	Pakistan	37	3
Training of Trainers and Consultants in Green Productivity	ROC	22	3
Training Course on Energy Efficiency in SMEs with Special Focus on Electric Motors	Turkiye	31	4
Workshop on Energy Efficiency and Management through Energy Analytics	Bangladesh	31	3
Workshop on Sustainable Ecotourism	Fiji	15	5
Workshop on Business Models for the Circular Economy in SMEs	Vietnam	26	4

Innovation for Productivity

Robust Ecosystem and Regulatory Framework

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Workshop on Decentralized Governance and Public Accountability	Indonesia	32	5
Conference on Agricultural Insurance and Farm Risk Management	APO Secretariat	42	3
Workshop on Building Robust Public Policy Ecosystems through Behavioral Insights	Malaysia	42	4
Multicountry Observational Study Mission on Industry 4.0 Digital Industrial Platforms	Singapore	18	5
Workshop on National Digital Transformation	Vietnam	14	4

Innovation Capability

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Workshop on Innovative Public–private Partnership Models for Improving the Sustainability of Food Supply Chains	Indonesia	53	3
Workshop on Innovative Technologies in Perishable Product Supply Chains for Small Farmers	ROC	42	6
Workshop on the Future of Regulation	Philippines	30	5
Workshop on Digital Transformation for the Public Sector	Philippines	41	4
Training Course on Innovation Management Standards for Enterprises	Vietnam	32	3
Conference on Public-sector Productivity: Creating an Agile and Productive Public Sector in the New Era of Governance	Philippines	34	3
Multicountry Observational Study Mission on Productivity and Innovation for the Digital Economy	ROK	18	2
Special Program for Capacity Building of Sustainable Food Value Chains for Enhanced Food Safety and Quality in Gampaha District	Sri Lanka	N/A	4
Workshop on Innovations in the Olive Oil Sector	Turkiye	51	2

Inclusive Productivity

SME Development

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Workshop on Foresight for SMEs	Vietnam	47	4
Conference on Agrifood Evolution	APO Secretariat	35	4
Multicountry Observational Study Mission on Enhancing Service SMEs' Competitiveness through Digitalization	Malaysia	34	3
Workshop on Innovative Business Models for Rural Tourism	Pakistan	22	6
Multicountry Observational Study Mission on Digital Farming for Small-scale Farmers	ROC	37	5

Broad-based Engagement

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Workshop on Women's Entrepreneurship in the Digital Economy	ROC	42	4
Workshop on Inclusive Rural Development	APO Secretariat	33	4
Workshop on Developing a Healthy Workplace for SMEs	Philippines	43	4
Workshop on Rural Tourism for Sustainable Development	Indonesia	48	7
Workshop on Demographic Trends and Their Implications for Productivity	ROK	40	4

Productivity Gainsharing

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Workshop on Productivity-linked Wage Systems in the Service Sector	Malaysia	56	4
Workshop on Performance Management Systems and Productivity of the Public Sector	Sri Lanka	43	4
Workshop on Service Quality and Productivity Gainsharing	APO Secretariat	39	3

Regional Catalyst

Certification and Accreditation

PROJECT TITLE	VENUE	PARTICIPANTS	RESOURCE PERSONS
Training Course of Assessors for Productivity Specialists Certification Program	Fiji	40	3

Digital-learning Platform

PROJECT TITLE	PARTICIPANTS	RESOURCE PERSONS
Advanced Course on Data Analytics for the Public Sector	63	1
Advanced Smart Manufacturing 101 in a Blockchain-driven Era	182	1
Agribusiness Management (Advanced)	31	2
Agricultural Insurance for Food Security	37	1
Agritourism Business Development	18	1
Apiculture Management	27	1
Applying Green Productivity Based on ISO14001 Standards	251	1
Basic Data Analytic Course for the Public Sector	105	1
Basic Smart Manufacturing 101 in a Blockchain-driven Era	21	1
Building Climate Change-resilient Agriculture	15	1
Business Models for Women Entrepreneurs	15	1
Case Studies on Incorporating Lean Manufacturing into Industry 4.0	164	1
Climate Change Impacts and Adaptation (Basic)	24	1
Cloud Solutions for Enhanced Productivity in the Service Sector	38	1
Controlled-environment Agriculture	22	1
Critical Strategic Foresight Tools for Sustainable Productivity	81	1
Development of Social Enterprises for Agribusiness	85	1
Digital Technologies for Smallholder Farmers	71	1

PROJECT TITLE	PARTICIPANTS	RESOURCE PERSONS
Energy Efficiency and Management in Electrical Systems	90	8
Energy Efficiency and Management in Thermal Systems	35	1
Energy Efficiency Techniques	16	8
Energy Management System Auditors' Course	42	1
Food Safety Management (Advanced)	82	1
Food Safety Management (Basic)	78	1
Future Aquaculture Farming	9	1
Future Food: Exploring Business Opportunities	9	1
General Aspects of Energy Management and Audit	55	1
Good Agricultural Practices (GAP)	19	1
Green Productivity and Integrated Management System	282	1
Innovations in Agroforestry Systems	15	1
Innovative Cost-effective Technologies for Sustainable Agriculture	13	1
Integrating Lean Manufacturing Systems and Industry 4.0 Concepts	117	1
Management of Innovation in SMEs	117	1
Marketing Strategy and Product Branding for SMEs	23	1
Material Flow Cost Accounting (ISO 14051)	20	1
Measurement of Public-sector Productivity	167	4
Modern Food Distribution Systems	19	1
Modern Food Storage and Transport Technologies	28	1
Occupational Health and Safety Management System (OHSAS 18001)	395	1
Organic Agriculture and Organic Agribusiness	24	1
Organic Inspection and Certification	41	1
Productivity Tools and Techniques (Advanced)	218	1
Productivity Tools and Techniques (Basic)	247	1

PROJECT TITLE	PARTICIPANTS	RESOURCE PERSONS
Rural Entrepreneurship Development	15	1
Service Design Thinking for SMEs	46	1
Service-sector Productivity and Innovation for the Digital Economy	52	1
Smart Farm Mechanization	12	1
Smart Manufacturing: Advanced	1	1
Smart Manufacturing: Basic	1	1
Smart Transformation of Agriculture	45	1
Sustainable, Resilient Supply Chains and Integration into Global Value Chains	232	1
Urban Agriculture	26	1
Waste Management in Agribusiness	15	1
Applications of Service Innovation	62	1
Applying Scientific Knowledge for the Public Sector	72	1
Behavioral Public Administration	45	1
Digital Manufacturing	23	1
Digital Transformation for SMEs	62	1
Generating Energy Sustainably	14	1
Green Productivity Tools and Techniques	34	1
Hydroponic Farming	40	1
Management of Plant Factories	31	1
Modern Food Retailing	90	1
Public-sector Innovation Labs	21	1
Regulatory Management Systems	39	1
Service-sector Transformation in Industry 4.0	21	1
Sustainable Fisheries	17	1

Research and Program Development

PROJECT TITLE	PARTICIPANTS	RESOURCE PERSONS
APO Productivity Databook and Database	N/A	21
Research on Labor Market Policies for Changing Market Demands	N/A	12
Research on the Complementarities of the Circular Economy and Green Productivity	N/A	13
Research on Innovation-led Productivity Growth for Middle-income Trap Avoidance	N/A	9
Research on an Aging Asia and Pacific: Preparing for the Future	N/A	5
APO Productivity Outlook	N/A	1
APO-OECD Review of Long-Term Productivity Growth Statistics and Estimating Method	150	1
Research on Need Assessment on Innovation Management	N/A	11
Labor Productivity Index	80	2
Inter-city Benchmarking Research on Hotel Productivity in Asia	N/A	1
Research on Digital Disruption: Policy Tasks and Responses by Governments	N/A	1
Research on Smart Agricultural Transformation for APO Member Countries	N/A	7
Research on Re-skilling Workers to Enhance Labor Productivity	N/A	7
Research on the Productive Employment Index	N/A	10
Research on SME Transformation for SDGs	N/A	14
Research on National Innovation Systems in Developing APO Members	N/A	6
Research on Productivity of the Informal Sector in APO Members: Issues and Challenges	N/A	12
Research on Inclusive Innovation Policies for Economic Growth	N/A	9
Review of Productivity Assessment Tools for the Agriculture Sector	N/A	7
Research on Emerging Needs of APO Member Economies	N/A	5
Research on Institutional Ecosystems to Drive Productivity	N/A	12
Productivity Analysis Series	N/A	3
APO Productivity Outlook 2023	N/A	1
Policy Study on Productivity-enhancing Structural Transformation in Lower Middle-income Countries	N/A	1

PROJECT TITLE	PARTICIPANTS	RESOURCE PERSONS
Policy Study on Productivity-enhancing Economic Structural Change in Upper Middle-income Countries	N/A	1
Policy Study on Productive Economic Structures in High-income Countries	N/A	1
Research on Emerging Needs of APO Member Economies	N/A	8

Strengthening of NPOs and Policy Advisory

Bilateral Cooperation between NPOs

SUBJECT	VENUE	PARTICIPANTS	DEPUTING COUNTRY
Strengthening Capability for Productivity Promotion	Fiji	4	Nepal
Strategic Innovation to Enhance Productivity	Malaysia	4	Sri Lanka

Certification Body Development

SUBJECT	VENUE	PARTICIPANTS	RESOURCE PERSONS
Green Productivity Specialist	Indonesia	6	2
Productivity Specialist	Malaysia	4	2
Productivity Specialist	Mongolia	8	2
Productivity Specialist	Pakistan	18	2
Productivity Specialist	Turkiye	7	2
Productivity Specialist	Vietnam	5	2

Demonstration Companies

SUBJECT	VENUE	DEMONSTRATION COMPANIES	RESOURCE PERSONS
Productivity Enhancement through Chemical Management Systems and Environmental Management Systems (ISO 14001:2015)	Pakistan	3	2
Application of Kaizen in Micro Hydropower Turbine Manufacturing	Pakistan	2	1
Improvement of Public Service Delivery through the Application of the Citizen-centric Approach	Philippines	2	2

Individual-country Observational Study Missions

SUBJECT	VENUE	PARTICIPANTS	DEPUTING COUNTRY
Implementation of the Circular Economy	ROC	15	Malaysia
Food Innovation	Thailand	12	Singapore
Accelerating Digitalization in Manufacturing Industry	ROC	15	Malaysia
Human Capital Development for Higher Productivity	Singapore	11	Malaysia
Productivity and Rural Community Development	Indonesia	5	Fiji
Governance and Policy Innovations	ROC	23	Philippines
Promoting Green Productivity in the Leather Industry	Indonesia	11	Pakistan

National Award Program

PROJECT	VENUE
National Award Program	Mongolia

Specific National Program

PROJECT TITLE	VENUE	RESOURCE PERSONS
Development of the Framework of the National Productivity Network of Islamic Republic of Iran	I.R. Iran	3
Digital Transformation Roadmap for the Development Academy of the Philippines	Philippines	1
Development of the National Productivity Master Plan for Pakistan	Pakistan	5
Institutional Capacity Development Plan for the Vietnam National Productivity Institute	Vietnam	2

Technical Expert Services

SUBJECT	VENUE	RESOURCE PERSONS
Lean Manufacturing System	Bangladesh	1
Productivity Measurement and Statistics	Bangladesh	1
Basic Productivity Tools and Techniques	Bangladesh	1
Smart Agriculture	ROC	3
Leadership in Post-COVID-19	Fiji	1
Lead Implementers in Adopting ISO 27001	Fiji	1
Policies and Initiatives to Promote a Startup Ecosystem	India	1
Rural Development	Indonesia	1

SUBJECT	VENUE	RESOURCE PERSONS
International Quality and Productivity Convention	Indonesia	2
Reinvigorating Productivity Growth	Japan	1
Introduction of Japanese Systems for Foods with Function Claims	Malaysia	1
Digitalization of Service Sector	Malaysia	1
Productivity Forum	Malaysia	1
Environment and Productivity Management Program	Pakistan	2
Strategic Foresight and Scenario-based Planning	Philippines	1
Public-sector Human Resources	Philippines	1
Strategic Foresight	Philippines	1
Development of Productivity Practitioners: Basic	Sri Lanka	3
Inclusive Productivity	Sri Lanka	1
Productivity Improvement through a Quality Work Environment	Sri Lanka	1
Development of Productivity Practitioners: Advanced	Sri Lanka	3
Thailand Quality Award	Thailand	1
Energy Transition toward Carbon Neutrality	Thailand	2
Improvement of Monitoring and Evaluation Process of the Ministry of Agriculture and Forestry of Turkiye	Turkiye	1
Advanced Innovation Management	Vietnam	1
Cold Chain System in Agrifood SMEs in Vietnam	Vietnam	2

Vision 2025 Outreach Program

PROJECT	VENUE	RESOURCE PERSONS
Vision 2025 Outreach Program	Mongolia	N/A

Appendix 2: Summaries of 2022 Projects

Centrality of Productivity

i. Smart Transformation

Workshop on the Internet of Things in Agriculture and Food Supply Chain Management

By adopting the Internet of Things (IoT) in agrifood supply chains, information from farm to fork is now accessible, traceable, and sharable among stakeholders in easier, cheaper, and quicker ways. This information makes supply chains more productive by reducing losses and adding value to products.

To provide insights on the IoT in the agrifood sector with the emphasis on blockchains to mitigate disruptions, build crisis resilience, and add value in agrifood supply chain systems, a digital multicountry workshop was held by the APO Secretariat, 9–11 March. There were 48 participants from 14 members. Three resource persons from India, Serbia, and the USA conducted the workshop. They also presented case studies to illustrate how the IoT and blockchains are adopted and their benefits in agrifood supply chains. The case studies provided participants with ideas on how the technologies could potentially apply to specific opportunities in their countries.

Program coverage: Overview of IoT innovations in agrifood supply chains; Blockchains in agrifood supply chains; IoT applications in agrifood in Europe; IoT applications in agrifood in Asia; Blockchain applications in agrifood; and Advancing the IoT in agrifood systems in Asia-Pacific countries.

Workshop on Customer Management Experience Using Data Analytics

A World Bank article published on 27 September 2021 reported that the service sector accounted for roughly 55% of GDP in developing countries and around 68% in developed ones. Customer experience management (CXM), which encompasses the processes used to track, oversee, and organize every interaction with customers throughout the engagement cycle, is a critical component of business success. Furthermore, the CX can be maximized if data analytics are used appropriately.

A digital multicountry workshop on Customer Management Experience Using Data Analytics was hosted by the Singapore Productivity Centre and APO Secretariat, 20–22 April. The workshop objectives were: understanding the importance of the CX and its management in SMEs; learning about advanced data analytics to maximize the CX and satisfaction; and equipping participants with knowledge of major customer data collection methods and how that data can inform business decisions. There were 35 participants from 13 members. Four resource persons including two local experts from Singapore and two international experts from Japan and the ROK gave presentations and led participants' discussion sessions.

Program coverage: Factors in the customer experience and how to improve it; Knowing customers and establishing consistency across channels; Addressing organizational structure and building relationships with customers; Data, analytics, and decision-making; Data-driven monetization; Understanding data-driven strategies; Seven-step data-driven problem-solving methodology; Applying the goals, operations, analytics, and levers (GOAL) data-driven operating model stack; and Challenges and opportunities for productivity specialists across member economies.

Training Course on New Technology for Human Resources Management in the Public Sector

Sound human resources (HR) management is key to building high-performance organizations. Qualified, motivated employees are closely tied to overall organizational productivity. This holds true for both the public and private sectors. The global pandemic and other trends have accelerated the adoption of technology into working life. Many organizations have teams working virtually in some way, whether it is with distributed teams, remote managers, or other hybrid models. These changes are accompanied by evolving practices in recruitment, training, performance management, and workforce planning. The private sector has led the integration of new technology solutions into HR functions, but public-sector managers need to follow suit and adapt these technologies to their context. However, the public sector lags behind the private sector in this. The technology available includes cloud-based HR tools, AI-based solutions, and advanced people analytics.

Against this backdrop, the APO Secretariat conducted a digital multicountry training course on New Technology for Human Resources Management in the Public Sector, 24–27 May. This course aimed at enabling managers and HR personnel to navigate the range of HR tools for use in the public sector. A total of 39 participants from 13 APO members attended. The course was facilitated by two resource persons from India and Japan.

Program coverage: Adapting a public service mindset to an increasingly tech-driven world; Surfing and surviving the digital tsunami; Leading people during public-sector digital transformation: A change management perspective; HR-tech: Evolution and progress; Promoting trustworthy AI in the public sector: Progress in research and practice; and Imagining the future and planning for digital initiatives in your organization.

Multicountry Observational Study Mission on Innovative Smart Farming Models for Agriculture 4.0

Agriculture 4.0, also known as smart farming, is a management concept to efficiently increase the quantity and quality of agricultural output by using advanced technologies including machines and IT devices such as sensors, drones, robots, GPS, AI, and the IoT. These technologies enable farmers to monitor fields precisely, make timely decisions and take actions based on data, and optimize workloads for achieving higher yields and quality at lower cost and with less labor.

In collaboration with the Ministry of Industry and Technology of Turkiye, the APO Secretariat organized a digital multicountry observational study mission on Innovative Smart Farming Models for Agriculture 4.0, 29–30 June. The objectives were to understand policies and R&D activities for Agriculture 4.0 in Turkiye, examine good practices by virtually visiting smart farming sites, and discuss enablers for advancing smart farming in the Asia-Pacific region. There were 47 participants from 11 members, with two resource persons from Turkiye. The participants virtually visited a model farm operated by Vodafone to understand the concept of the Vodafone Smart Village and how Agriculture 4.0 technologies benefit farm operations through a live broadcast.

Program coverage: Overview of the history and recent progress of Agriculture 4.0 technologies; A model farm operated by Vodafone; Policy and R&D programs in Turkiye; and Virtual visit to a smart dairy farm.

National Workshop on Advanced Greenhouse Horticulture

The applications of IoT technologies have advanced greenhouse horticulture management and practices. In-house environments are monitored by sensors, and the data are analyzed to yield the best-quality products. Farmers can therefore control harvests to meet consumers' changing demands. Advanced greenhouse horticulture is costly, however. To be successful, greenhouse horticulture farmers must have sound entrepreneurial and financial planning skills, taking into account costs and benefits. The production of high-quality produce must be accompanied by the necessary marketing skills.

To introduce knowledge and technologies for advanced greenhouse horticulture, provide consultancy on advanced greenhouse horticulture management, and promote greenhouse horticulture in Thailand to improve the quality and supply of locally produced vegetables, the APO Secretariat along with the FTPI organized a hybrid national workshop on Advanced Greenhouse Horticulture, 20 June. Sixty-eight participants in Thailand attended the workshop, along with a resource person from Japan, who shared knowledge and technologies on plant factory management through a digital platform.

Program coverage: Advanced greenhouse horticulture: Innovations and technologies; and Individual consultation on plant factory management.

Training Course on Advanced Internet of Things Applications for Smart Manufacturing

Application of the Internet of Things (IoT) has become a foundation for businesses to enhance productivity and adopt smart manufacturing. The IoT has proven highly effective in reducing downtime, monitoring quality, improving energy efficiency, enabling predictive maintenance, and better understanding customers' needs. Both SMEs and larger businesses in the Asia-Pacific region leverage the IoT to ensure real-time monitoring and adjustment of production, remote control and maintenance, and overall agility and flexibility for business continuity. The IoT has much more to offer to manufacturers through its complementarities and integration with related digital technologies, such as data analytics, edge and cloud computing, AI, and information security.

A training course on Advanced Internet of Things Applications for Smart Manufacturing was virtually co-hosted by the CPC and APO Secretariat, 5–8 July, to impart advanced knowledge by providing interactive practice and enhance understanding of potential synergies that the IoT could create when integrated with other technologies. Forty participants from 16 members were selected to take part in the training course, guided by five resource persons from the ROC, Singapore, and the USA, who introduced the latest trends and applications of the IoT and gave examples of digitization in factories and enterprises through hands-on practice.

Program coverage: The IoT and smart factories; The IoT and data analytics; Human-in-the-loop and smart manufacturing; and IoT applications in manufacturing. Hands-on exercises covered Understanding IoT devices and basic configurations; Connecting IoT devices to the internet; Collecting information; and Visualizing information for strategy development.

Training Course on Innovative Approaches in Aquaculture

Global seafood production has continued to increase annually, reaching 178 million tons in 2019. This increase primarily came from aquaculture production, while capture production has remained almost unchanged since 1990. This development is made possible by rapid advances in aquaculture technologies. Previously, marine product aquaculture was practiced mainly in coastal areas. Today, it is increasingly common in inland ponds. In addition, new, fast-growing, disease-resistant species have been developed through biotechnology. Other advances are seen in aquaculture supply chains, with preservation technologies to maintain freshness and quality during transport becoming widespread.

To introduce innovative approaches and technologies in aquaculture, promote smart transformation of aquaculture in APO members, and enhance productivity in aquaculture to support local economies, the APO Secretariat along with the Central Fisheries Research Institute, Ministry of Agriculture and Forestry, and Ministry of Industry and Technology, Turkiye, organized a digital multicountry training course on Innovative Approaches in Aquaculture, 2–5 August. Thirty-one participants from 12 APO members attended the training course, along with three resource persons from Japan and Turkiye, who shared trends and current technologies in aquaculture.

Program coverage: Current status of cage aquaculture systems; Fed culture in Japan; Genetic conservation of fish stocks; Numerical simulations of the environment around farming sites; Carrying capacity of

farming sites and sustainability; Unfed culture in Japan; Comprehensive strategy to turn aquaculture into a growth industry in Japan; and Genetic selection in aquaculture.

Workshop on Enhancing Service-sector Productivity with Cloud Solutions

Cloud solution technologies are advancing at an exponential pace. They offer immense potential for boosting enterprise profitability and productivity, making businesses more competitive. Cloud solutions offer technologies as a service, allowing enterprises to harness them without upfront capital costs for building infrastructure. This is especially beneficial to service-sector SMEs. Software solutions available as a service provide cloud storage for huge amounts of data accessible irrespective of geographic location, managing finance and accounting, optimizing organizational human resources assignments, and building customer relationships, communications, and marketing.

To examine emerging trends and innovative uses of the latest cloud solutions, examine the best practices for the implementation of cloud solutions for enterprises, and share policy frameworks of APO members for service-sector productivity enhancement, the APO Secretariat along with the CPC organized a digital three-day workshop on Enhancing Service-sector Productivity with Cloud Solutions, 24–26 August. Thirty-four participants from 12 APO members attended, and three international experts from Japan, Malaysia, and Singapore delivered presentations on applicable cloud solutions.

Program coverage: Implications and learning from the COVID-19 pandemic; Understanding barriers to service-based enterprise growth; Unlocking growth opportunities through technology upgrading; Harnessing cloud-based solutions for business transformation; Approaches to evaluate appropriate cloud-based solutions; and Addressing challenges in adopting cloud-based technologies. A virtual visit was hosted by Ucarer Inc., which operates a platform serving the homecare needs of families by engaging care attendants, nursing staff, and treatment providers. An interactive session on Accelerating Digital Transformation through Cloud Solutions was also held.

Workshop on Business Models for the Recovery Phase in the Service Industry

Although most countries in the Asia-Pacific have reopened their borders, international travel is expected to remain restricted due to varying levels of COVID-19 infection risk, vaccination rates, and quarantine requirements. In a report published in early 2022, the ADB forecast that international travel in Asia would be tentative and sporadic amid concerns about new COVID-19 variants in destinations and fears of their spread by infected travelers upon returning home. The pandemic has therefore created drastic changes in the business environment of the service sector, especially hotels, aviation, retail, tourism, and food and beverages. These changes will likely persist over the long term, requiring players in this sector to rethink their business models to adjust to the new normal.

Considering the importance of this sector to most APO members, it is vital to assist them in selecting the most effective business recovery models. In collaboration with Singapore Productivity Centre, the APO Secretariat organized a digital multicountry workshop on Business Models for the Recovery Phase in the Service Industry, 27–29 September. A total of 26 participants from 12 member economies attended the workshop, which was facilitated by four resource persons from Japan, Singapore, and Thailand.

Program coverage: Overview of the service sector; Recovering from the pandemic; Digitalization in the service industry; Formulating strategies for recovery; Innovation in the service sector; Best practices from APO members; Talent development strategies; Future of the postpandemic service industry; and Challenges and opportunities for the service industry.

Training Course on Food Safety Management Systems: Advanced

Food safety is essential for human health. Contamination and food-borne illness in food supply chains must be avoided as they harm consumers' health. They also affect the business of food providers, causing consumers to withdraw their trust until the cause is identified and the problem solved. Recently, food supply chains have become

more complicated as they use processed raw materials and imported food from multiple sources. Therefore, identifying the cause of food-borne illness is more difficult. Everyone engaged in food manufacturing, restaurants, and other food-related industries must understand and follow food safety management systems (FSMS) to prevent food-borne illness risks.

To introduce recent advances in FSMS, learn about practical knowledge and technologies to implement advanced FSMS, and share best practices of advanced FSMS, the APO Secretariat along with the NPO Bangladesh organized a digital multicountry training course on Food Safety Management Systems: Advanced, 5–8 September. Forty-five participants from 10 APO members attended the training course, along with four resource persons from Bangladesh, Malaysia, and Thailand, who shared knowledge and technologies on FSMS.

Program coverage: Overview of advanced food safety management; All about food safety; Cause and prevention of food contamination in Bangladesh; How organizational context affects advanced FSMS adoption; Food safety vs. food innovation; Implementation of advanced FSMS; Community-based future approaches in FSMS in Bangladesh; FSMS in Bangladesh: Present and future; and Food business sustainability.

Workshop on Efficient Food Storage Technologies and Management Practices

With an expanding middle class and increased per capita income, the demand for food is shifting from quantity to quality. The demand for fresh, safe food is increasing worldwide. Maintaining food freshness and safety adds value and reduces food losses. As most agricultural products are perishable, however, their quality starts deteriorating immediately after harvest due to respiration, water loss, insect pests, and diseases. Around 14% of food was lost after harvest before reaching retailers in 2016 (UN, 2020). Modern food storage technologies can help maintain quality throughout food value chains (FVCs) and reduce postharvest food losses. Efficient FVCs are therefore important for food storage management. They also contribute to increasing the income of the stakeholders involved.

To introduce the main causes/mechanisms of fresh agrifood product deterioration, prevent agrifood product deterioration based on the characteristics of fresh food types, and discuss the latest technologies and management practices for preserving the quality of agrifood products during storage, the APO Secretariat along with the NPC, India, organized a digital multicountry workshop on Efficient Food Storage Technologies and Management Practices, 20–22 September. Fifty participants from 12 APO members attended the workshop, along with four resource persons from India, Japan, and Singapore, who shared efficient food storage technologies to maintain the quality of food.

Program coverage: Impact of environmental conditions on fruit and vegetable quality; Challenges of managing the dynamics of current supply flows for food security; Packaging technologies for the preservation of fresh produce; Efficient management practices for food storage; Managing the balance of demand and forecasting with planned inventory flows; Scientific storage of food grains in commercial warehouses; and Role of moisture, temperature, and humidity in grain storage.

Training Course on Data Analysis for Smart Manufacturing

Digitization is usually the first step in smart manufacturing for the purpose of acquiring data and information to understand, monitor, and improve the processes of value creation. With timely information gathered by sensors and communicated through the IoT, data analytics provide real-time visibility of every aspect of operations and performance. Strengthening the capabilities of SMEs in using data is essential for improving their productivity and supporting their digital upgrading.

To impart fundamental knowledge of data science, related technologies, and their implications for business operations and smart manufacturing, the APO Secretariat joined forces with the CPC in organizing a digital multicountry training course on Data Analysis for Smart Manufacturing, 13–16 September. Forty participants from 12 APO members were selected to attend the training course, led by five resource persons from the ROC, the

Netherlands, and the Philippines who introduced the concepts and applications of data analytics and discussed the implications for manufacturers and business management.

Program coverage: Data and digital transformation; Data thinking: Identifying and solving problems with data; AI, machine learning, and deep learning applications in semiconductor fabrication; Basic data collection and processing; Data science in manufacturing; Data visualization; Applying data analytics for business strategy and decision-making; and Data analysis for SMEs: Use cases for management and manufacturing analysis.

Training Course on Cold Chain Systems in Agrifood SMEs

While Cambodia was not severely impacted early in the COVID-19 pandemic, the situation became more serious over time. Since the agrifood sector is the largest contributor to employment in Cambodia, support packages aimed at increasing its resilience are crucial. The APO provided Cambodia with two cold storage containers and one ice machine from Japan to assist agrifood SMEs under a Special Cash Grant from the Ministry of Foreign Affairs of Japan (MOFA). It aimed to improve the end-to-end cold chain system (from farm to retail) by using these modern storage technologies to develop a pilot model enabling the country to be more resilient to food chain disruptions. This program was completed on 31 March 2022 with the successful use of the equipment by Green Mart, the SME selected as the demonstration company.

To conduct cold chain training for SMEs in the supply chain network of Green Mart and allow observation of the use of the innovative equipment to reduce losses and increase product value, the APO Secretariat along with the NPCC organized a training course on Cold Chain Systems in Agrifood SMEs, 31 October–5 November, through the face-to-face modality. It was attended by 21 participants representing the Department of Agro-industry and NPCC. This training course was funded by a Special Cash Grant from the Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF). Two resource persons from Japan and Singapore also conducted follow-up technical guidance for the demonstration company.

Program coverage: Onsite evaluation and consultation with the demonstration company; and Training course on operations and equipment to maintain fresh food quality.

Training Course on Strategic Management for Public-sector Productivity Enhancement

Public-sector organizations have had to transform in response to rapid changes and uncertainties. As a result of complex new challenges, management of public services requires greater skills to guide the future course of public-sector organizations. These strategic management skills comprise deploying organizational capacity efficiently and managing performance to achieve the desired goals and higher productivity.

To introduce recent advances in strategic management and tools for productivity improvement in the public sector, the APO Secretariat along with the NPS organized a digital multicountry training course on Strategic Management for Public-sector Productivity Enhancement, 25–28 October. Forty-two participants from 11 APO members completed the course, with three resource persons from Finland, Singapore, and Sri Lanka who introduced recent approaches and models for advancing strategic management in the public sector.

Program coverage: Linking strategic management with the productivity and performance of public-sector organizations; Current models for strategic management in the public sector; Revisiting the science and development of strategic management; Public value and the triadic model in public-sector strategic management; Strategic management framework and processes in the public sector; and Future of strategic management in the public sector. Group activities were also conducted on applying the tools acquired from different sessions.

Multicountry Observational Study Mission on Application of Alternative Energy Sources for Decarbonization

Alternative energy sources and other transition-related technologies are vital in achieving nationally determined contributions and pursuing efforts to limit the temperature rise to 1.5°C above preindustrial levels, as reported in the Glasgow Climate Pact during COP26 held in 2021. Recently, many nations have prepared action pathways to achieve net-zero emissions by 2050 which include energy and industrial transitions as key strategies. Maximizing renewable energy, building zero-carbon fuel supply systems, technological advances, energy storage, and the use of electric vehicles are some of those strategies.

To showcase the benefits of cleaner energy sources and provide technical and policy insights on using renewable energy, a multicountry observational study mission on Application of Alternative Energy Sources for Decarbonization was implemented 13–14 December in the online modality. The OSM was hosted by the CPC, and 38 participants from 10 APO members attended. Experts from the ROC, India, and the ROK shared policy landscapes, progress of adoption of renewable energy, and emerging trends in the alternative source domain.

Program coverage: Adopting alternative energy sources for competitive and cleaner industrialization; Advances in harnessing renewable energy; Applications of integrated renewable energy systems for businesses; Policy framework accelerating adoption of clean energy in the ROC; and Streamlining adoption of cleaner sources for energy needs. A virtual site visit to LDS Energy was also organized to showcase energy storage, micro grid, and energy-monitoring systems.

Development of Public-sector Productivity Specialists

The public sector is one of the entities that was hit by the COVID-19 pandemic in unprecedented ways, which affected the continuity of essential services such as healthcare, education, public administration, and food delivery due to restrictions on mobility. It changed the ways employees in public-sector organizations operate, forcing them to adjust to remote work and adopt digital solutions to ensure that services could be provided while enhancing performance and productivity. Examining methods and approaches to improve work processes, motivation and skills of employees, and managerial capability to optimize public-sector resources in the region is needed.

The DAP and APO Secretariat organized a digital multicountry training course on Development of Public-sector Productivity Specialists, 5–9 December, to assist participants in acquiring required skillsets and competencies as productivity specialists who can continuously enhance performance and productivity in the public sector under the new normal. Forty-three participants from 11 APO members attended the training course, along with four resource persons from Canada, the ROK, and the Philippines who discussed the importance of productivity growth in the public sector and examined the roles of productivity specialists in supporting improvement initiatives in public-sector organizations.

Program coverage: Understanding the concept of public-sector productivity; APO Public-sector Productivity Framework; Citizen-centric service issues and challenges; New opportunities for improving public service delivery in the new normal; e-Government; Regulatory reform; Case studies; Performance management; Public-sector productivity measurement; Tools for improving organizational productivity; Leadership for performance improvement; and Change management.

ii. Quality of the Workforce

Workshop on Enhancing Employee Productivity in the Digital Workplace

The workplace is undergoing disruptive changes. New communication and collaboration technologies are transforming the way employees interact in enterprises, opening doors to smarter, more productive work. Technology acts as a great enabler in improving workplace culture and engagement. The needs of employees are changing, and digital workplace strategies will improve both employee productivity and customer engagement.

To understand how digital workplaces function and learn appropriate skills for enhancing productivity in them, the FTPI and APO Secretariat organized a digital multicountry workshop on Enhancing Employee Productivity in the Digital Workplace, 23–25 February. Fifty-six participants from 15 APO members attended, along with three resource persons from Japan and the ROK.

Program coverage: Major changes in the workplace in the digital era; Defining the digital workplace and digital workplace framework; Technology: The digital workplace toolbox; Governance, risk, and compliance; Business drivers: Measurable business value; Data-driven management; Digital workplace best practices from Japan; Human-centric management in the digital era; and Nurturing and maintaining a digital culture.

Development of APO-certified Productivity Specialists

As a regional catalyst, the APO builds the capacity of NPOs and other stakeholders to improve productivity in member economies. The Development of Productivity Specialists is a flagship program to enhance the capability of NPOs by inculcating knowledge and building skills among their professional staff. The certification of participants who attended this course was previously conducted by the APO Secretariat, but the Accreditation Program started in 2018 elevated that role to developing and accrediting NPOs to become productivity specialist certification bodies (CBs). Toward the end of 2021, the NPOs of Malaysia and Vietnam became the first APO-accredited CBs. Other NPOs expected to be accredited in 2023 include: the NPC, India; NPO of I.R. Iran; MPO; NPO, Pakistan; and Turkish Management Sciences Institute (TUSSIDE), a partner of the NPO of Turkiye.

The APO Secretariat in collaboration with the MPC organized the Development of APO-certified Productivity Specialists, 7–11 March through the virtual modality. Fifty-three individuals from 15 APO member economies, including 12 from Malaysia, attended, representing professional staff of NPOs, academics, and public- and private-sector organizations. The sessions were conducted by three resource persons from Malaysia, the Philippines, and Singapore.

Program coverage: The APO-PS 101:2019 Requirements for Productivity Specialists; Functional competency development of productivity specialists for domain expertise in understanding productivity and productivity tools and techniques; Competency requirements of productivity specialists; Functional competency development of productivity specialists as productivity trainers, productivity promoters, and productivity consultants; Conducting P&Q diagnosis; Group presentations; Project preparation for the Certification Program; and course test.

Workshop on Talent Development for the Future of Work

The future of work encompasses changes in work, the workforce, and the workplace. Significant changes are anticipated with increasing numbers of smart factories and workplaces, undergirded by technologies like intelligent co-robots, management by algorithm, and the IoT. Another is the emergence of the platform economy, where increasing connectivity has created a digitally mediated product and labor market. In these online platforms, workers can find short- and long-term jobs, and goods and services can be ordered from nearly anywhere in the world.

The broad impact of these trends is the creation of new jobs, disappearance of old jobs, and growing possibilities of regional or even global skill mismatches. COVID-19 has accelerated these changes, with the workforce

emerging from the pandemic different from the one that entered it. The most significant shifts are occurring in how organizations approach the talent they have, the talent they need, and the expectations of their talent.

In collaboration with the FTPI, the APO Secretariat conducted a digital multicountry workshop on Talent Development for the Future of Work, 29–31 March, to examine the changing landscape of work and its possible trajectories and investigate different models of talent development emerging around the Asia-Pacific and beyond. A total of 48 participants from 15 APO members attended. The workshop was facilitated by five resource persons from Australia, the UK, and USA.

Program coverage: Employee digital capabilities and talent development; Learning power and the future of skills; Skill-led, lifelong learning in Asia; Designing a skill-led approach to lifelong learning; Innovation in talent and capacity development; Ecosystem approaches to learning; and Creating better future work and careers with job crafting.

Development of Public-sector Productivity Specialists

The COVID-19 pandemic has hit organizations and employees in every sector worldwide in unprecedented ways, including the public sector. Almost all governments implemented strict lockdowns, contact tracing measures, and digitization to save lives while ensuring the continuity of essential services such as healthcare, education, public administration, and food delivery. Recognizing the importance of public-sector performance in serving citizens' needs under the new normal, the APO continues examining methods and approaches to improve work processes, motivation and skills of employees, and managerial capability to optimize public-sector resources in the region.

To equip participants to become competent public-sector productivity specialists by mastering the knowledge, skills, and competencies stipulated under the APO's curriculum, the APO Secretariat along with the DAP organized a digital multicountry training course on Development of APO-certified Public-sector Productivity Specialists, 16–20 May. Forty-five participants from 11 APO members attended, with three resource persons from Canada, the ROK, and the Philippines who shared their knowledge on different topics outlined in the APO Course Manual on Developing Productivity Specialists in the Public Sector.

Program coverage: Tools for improving organizational productivity; Citizen-centered service; e-Government; Regulatory reform; Performance management systems; Measuring public-sector productivity; Leadership and change management; Developing a productivity improvement plan; and Group exercises on case studies.

Training Course on Smart Sustainability Assessment Tools and Techniques for Improving Agrifood Industries

Efforts to achieve socially, economically, and environmentally sustainable development are progressing. Agrifood-sector stakeholders are actively contributing by improving productivity, protecting natural resources, and minimizing the environmental impacts of farming and agribusiness operations as seen from their sustainability assessment performance that covers environmental integrity, economic resilience, social well-being, and good governance from production to processing and distribution. Sustainability assessment has emerged as an important policy tool for both government and private business. The assessment can be in the form of self-evaluation by agribusiness enterprises or reporting to business partners, consumers, or authorities.

To introduce smart sustainability assessment tools and techniques for improving agrifood industries, a digital multicountry training course was conducted by the APO Secretariat with support from the NPCC, 12–15 July. Fifty participants from 10 APO members successfully completed the training. Three resource persons from Japan, Singapore, and the UK delivered presentations and facilitated group work. The participants divided into groups to discuss and share key learning points to resolve issues in their context-specific logical frameworks.

Program coverage: Agrifood systems and sustainability: Key concepts, guidelines, and challenges; Sustainability indicators in agriculture practices; Agrifood systems and sustainability assessment; Sustainability challenges in the production, processing, and distribution components of agrifood value chains; Global sustainability

assessment: Key metrics for agrifood systems; Paradigms and professionals in agricultural food sectors to achieve sustainability; Business models addressing sustainability challenges along value chains; Smart tools and techniques using big data analytics for achieving agrifood sustainability; and Key insights from business models addressing sustainability challenges.

Development of APO-certified Productivity Specialists

The APO Vision 2025 aspires to capitalize on prevailing trends, maximize emerging opportunities, and overcome challenges in the years ahead. As a regional catalyst, the APO builds the capacity of NPOs and other stakeholders to improve productivity in member economies. The Development of Productivity Specialists is a flagship program to enhance the capability of NPOs by inculcating knowledge and building skills among their professional staff. The certification of participants who attended this course was previously conducted by the APO Secretariat, but the Accreditation Program started in 2018 elevated that role to developing and accrediting NPOs to become productivity specialist certification bodies (CBs). In 2021, the NPOs of Malaysia and Vietnam successfully completed their preparations and became the first batch of APO-accredited CBs. The NPOs of India, I.R. Iran, Mongolia, Pakistan, and the Turkish Management Sciences Institute (TUSSIDE), a partner of the NPO of Turkiye, are expected to be accredited in 2023. The transformation of NPOs into CBs is expected to accelerate the development of competent productivity specialists across APO members.

The APO Secretariat in collaboration with the MPC organized the Development of APO-certified Productivity Specialists, 7–18 November, in Kuala Lumpur in the face-to-face modality. Thirty-four individuals from 13 APO member economies, including 15 from Malaysia, attended, representing professional staff of NPOs, academics, and public- and private-sector organizations. The sessions were conducted by four resource persons from Malaysia, the Philippines, and Singapore.

Program coverage: Latest techniques to improve efficiency and raise productivity; Standards and requirements for APO-certified Productivity Specialists based on APO-PS 101: Requirements for Productivity Specialists; and Theoretical and practical knowledge of productivity improvement strategies at firm and organizational levels.

Training Course on Digitalization of SMEs in the Manufacturing Sector

Transforming business operations by leveraging digital technologies has become indispensable for companies to survive the pandemic. Strict measures imposed by governments such as movement control orders and mandatory quarantines forced many companies to turn to digitalization. However, almost half of manufacturing companies in the ASEAN region fell behind the industry average in adopting digital technologies.

Because the manufacturing sector contributes more than 20% of GDP in most countries in this region, accelerating digital adoption will be necessary for postpandemic economic recovery. Hence, in collaboration with the JPC, the APO Secretariat organized a digital multicountry training course on Digitalization of SMEs in the Manufacturing Sector, 8–11 November, to learn about digital transformation and the requirements for manufacturing SMEs to embark on digitalization. Twenty-one participants from 11 member economies attended the workshop, which was led by three resource persons from Japan and Singapore.

Program coverage: Overview of digitalization in SME manufacturing in Asia; The Industry 4.0 Readiness Index; Data acquisition using the IoT: Overview and trends; Data acquisition using the IoT: Techniques and tools; Digitalization and kaizen; Case study of a Japanese company; Case studies from APO members; and Upgrading SME capabilities through digitalization.

Training Course on Foresight for Public-sector Organizations

Governments are now more concerned than ever about the future and planning for disruptions before they occur. Thinking about the future and imagining what is to come are difficult because of the accelerated pace of change and increased uncertainty. Governments and organizations are therefore emphasizing the use of foresight

in policymaking. This involves exploring and preparing for diverse possible developments in efforts to future-proof strategies, identifying potential opportunities and challenges, and designing innovative ways of improving productivity and well-being under rapidly evolving circumstances.

To promote the foresight concept among APO members, the NPS and APO Secretariat organized a digital multicountry training course on Foresight for Public-sector Organizations, 13–16 December. It was attended by 39 participants from 12 APO members. Presentations were given by two resource persons from Australia, who also led discussions.

Program coverage: Fundamentals of foresight; Approaches and methodologies for practicing foresight; Future thinking and the generic foresight process; Scenario planning; Horizon scanning; Foresight in the public sector; Identifying critical uncertainties; Building future scenario worlds; Communicating scenarios; Group presentations of scenarios; and Implications of scenarios for public policy, programs, and innovation.

iii. Green Productivity

Workshop on Climate-smart Agriculture Techniques and Practices

Agriculture is one of the sectors most vulnerable to climate change. Shifts, instability, and extremes of temperature and precipitation directly impact its productivity. Agriculture is also one of the main sectors responsible for climate change. To protect against and mitigate climate change while producing more food for growing populations, the adoption of climate-smart agriculture (CSA) must be accelerated.

In collaboration with the DAP, the APO Secretariat organized a virtual workshop, 26–28 April, to share the latest technologies and practices to adapt to and mitigate climate change in the agriculture sector, examine good practices of CSA to maintain and enhance crop productivity, and discuss strategies and actions for advancing the adoption of CSA in the Asia-Pacific region. There were 40 participants from 12 member economies, comprising 25 from the public sector, 13 from academia, and two from the private sector. Three resource persons from Italy, Japan, and Thailand shared policies, frameworks, and good practices from global, regional, and national perspectives.

Program coverage: Overview of CSA approaches; Overview of CSA techniques and practices; Case study: Development of CSA in Thailand; Case study: CSA and greenhouse gas emission mitigation strategy in Japan; Case study: CSA in the Philippines; and Key considerations enabling CSA.

Training Course on Green Productivity

In the APO Vision 2025 of Inclusive, Innovation-led Productivity Growth, one strategic thrust is the promotion and adoption of GP. Since 2001, various projects have been conducted to build a critical mass of GP specialists who can act as consultants, trainers, and promoters to assist industry in decoupling business growth from environmental degradation. The introduction of the Accreditation Program in 2018 elevated the role of the APO as an accreditation body to develop and accredit NPOs to become certification bodies of GP specialists. The APO-GPS 201:2019: Certification Scheme and Competency Standards for GP Specialists details the requirements, and this five-day course is a prerequisite for APO certification.

Besides introducing GP concepts, methodology, tools, and techniques, the training prepares participants to implement the GP framework in projects for further assessment to become APO-certified GP Specialists. A five-day training course on GP was implemented in the digital modality and hosted by the NPO Pakistan, 23–27 May. Thirty-seven participants from 12 APO members attended. Three resource persons from Norway, Pakistan, and Singapore delivered presentations on topics related to the GP framework and facilitated group work.

Program coverage: Implications of a 1.5°C rise in global temperature; Pathways to net-zero carbon emissions and cleaner industrialization; Introduction to the concept of GP; GP methodology; Standards related to GP; and

APO-GPS 201:2019: Certification Scheme and Competency Standard for Green Productivity Specialists. The participants also worked on a case study of a bottle manufacturing plant and presented potential solutions to enhance its productivity and profitability with the least environmental impact.

Training of Trainers and Consultants in Green Productivity

The Asia-Pacific region has seen a rapid rise in industrialization in the last few decades by exploiting its vast natural resources, resulting in economic prosperity, employment generation, technology upgradation, and higher standards of living. However, industrialization is also contributing to greenhouse gas emissions and pollution and hence adversely impacts the environment. This calls for urgent action to decouple industrialization and environmental degradation. In efforts to enhance productivity and the quality of industry without compromising the health and safety of the workforce while minimizing environmental impacts, the APO developed the Green Productivity (GP) concept.

The Training of Trainers and Consultants in Green Productivity was implemented in the digital modality by the CPC and APO Secretariat, 26–30 September. The objectives were to give insights on the GP framework including tools, techniques, methodology, and management systems and prepare participants to become APO-certified GP Specialists. Twenty-two participants from 11 APO members successfully completed the training. Three resource persons from the ROC, Norway, and Singapore delivered presentations on relevant topics and facilitated group work.

Program coverage: Environmental degradation and climate change; Action-based approaches to sustainable development; Pathways to greener industrialization; Six-step and 13-task GP methodology; GP tools and techniques; and Management systems facilitating GP. Guided by the resource persons, participants were divided into groups to identify GP options in a case study on bottle manufacturing. The training concluded with a session on APO-GPS 201:2019: Certification Scheme and Competency Standards for GP Specialists. All participants were encouraged to pursue APO GP Specialist certification requiring them to submit and implement a GP project report for further assessment.

Training Course on Energy Efficiency in SMEs with Special Focus on Electric Motors

Electric motors are used in almost all sectors of industry along with the commercial, residential, transport, and agriculture sectors. As power consumed by motors accounts for more than 90% of the total product life cycle cost, improving operating and design efficiency of motors would reduce CO_2 emissions significantly. Although several countries are now shifting to higher efficiency standards as regulatory measures, they are primarily applicable to new motors. To reach climate targets set out under the Paris Agreement, there is a need to focus on energy efficiency and its critical role in the energy transition.

A training course on Energy Efficiency in SMEs with Special Focus on Electric Motors was implemented in the digital modality by the Ministry of Industry and Technology of Turkiye and APO Secretariat from 11 to 14 October. Thirty-one participants from 12 APO members attended, and four resource persons from Denmark, Portugal, and Turkiye shared their knowledge and experience on energy-efficient motors. It was aligned with the Green Productivity goal of guiding enterprises to enhance productivity and profitability with the least environmental impact. The objectives were to disseminate relevant knowledge on energy efficiency and management, provide an overview of emerging technological trends in improving the operating efficiency of electric motors, and examine opportunities, best operating practices, and policy frameworks on the energy efficiency of electric motors.

Program coverage: Significance of energy efficiency and management; Adopting standards to improve the energy performance of enterprises; Characteristics of electric motors; Identification of energy conservation opportunities; Assessment of electric motor performance; Financing of energy conservation projects; and Group work on case studies of improving the energy efficiency of motors.

Workshop on Energy Efficiency and Management through Energy Analytics

Climate change is now obvious and calls for urgent action. Adopting energy-efficient technologies and operating practices can contribute to huge reductions in carbon emissions only surpassed by renewables. Energy efficiency is a prominent tool of the Green Productivity concept developed by the APO which guides enterprises to be productive with minimal environmental impact of their operations. Recent technological advances have contributed to increasing the design efficiency of plant machinery, but operational efficiency requires continuous measurement and analysis of key performance parameters.

To promote the adoption of energy efficiency to decouple industrial growth from environmental degradation, examine best practices to conserve energy at the enterprise level, introduce digital tools and software to measure equipment-level energy performance, and conduct technoeconomic analysis of energy conservation opportunities, the APO Secretariat along with the NPO Bangladesh organized a digital multicountry workshop on Energy Efficiency and Management through Energy Analytics, 15–17 November. Thirty-one participants from 12 APO members attended, and three resource persons from Canada, Denmark, and India gave presentations on topics related to energy efficiency and management along with leading hands-on experience sessions in energy modeling.

Program coverage: Energy efficiency to decarbonize industrial growth; Optimizing equipment energy consumption; Identifying energy conservation opportunities; Smart data measurement solutions; Technoeconomic analysis of energy conservation options using digital tools; Developing data-driven energy performance models; Features of energy modeling software; and Hands-on experience in using energy modeling software.

Workshop on Sustainable Ecotourism

Tourism provides abundant opportunities for employment, investment, infrastructure, and cultural exchanges, but its benefits often come at the cost of environmental pollution, commercialization of local cultural activities, biased and insecure work opportunities, and imbalanced development focuses, undermining the sustainability of the host communities. As tourism is increasingly viewed as an engine for rural development, it is crucial to identify strategies for adopting "tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities," as the World Tourism Organization defines sustainable tourism.

Recognizing that sustainable tourism has become an essential strategy and goal for countries and communities aspiring to benefit from their natural and cultural assets, the APO Secretariat collaborated with the NTPC Fiji in organizing a digital multicountry workshop on Sustainable Ecotourism, 1–3 November, to discuss the trends in and strategies for developing sustainable tourism. Fifteen participants from nine APO members were selected to attend the workshop led by five resource persons from the ROC, Fiji, India, Israel, and Japan, who introduced concepts of and trends in sustainable tourism and discussed policies, good practices, and available tools that support its development.

Program coverage: Ecotourism, sustainable tourism, and development; Strategies for and good practices of sustainable tourism; Tourism and rural development: Examples from APO members; Certifications and standards for sustainable tourism; Developing an ecosystem for sustainable tourism; and Good practices of sustainable tourism from Fiji.

Workshop on Business Models for the Circular Economy in SMEs

The circular economy (CE) concept has emerged as a response to climate change, environmental degradation, and the limitations of the linear economy. It is based on a production and consumption model that emphasizes sharing, renting, reusing, repairing, and recycling existing materials for as long as possible. The life cycle of materials is thus extended. Transition to the CE is a critical step that requires enterprises to reuse resources, address environmental issues, and promote sustainability. However, awareness of current trends and challenges

of the CE, particularly among SMEs, is limited. Given the scarcity of essential raw materials and resources, SMEs must develop business models that shift from the current linear economic model to a circular one.

In collaboration with the VNPI, the APO Secretariat organized a digital multicountry workshop on Business Models for the Circular Economy in SMEs, 21–23 December, to discuss the foundations and business models SMEs could utilize in adopting the CE concept in their operations. A total of 26 participants from 12 member economies participated in the workshop, facilitated by four resource persons from the ROC, Japan, Norway, and Vietnam.

Program coverage: Green Productivity (GP) concept and approaches; Integrating GP with the circular economy; International standardization of circular economy approaches and implementation in SMEs; Updates on programs/activities to promote GP/the circular economy/SDGs among SMEs; Case studies of circular economy adoption by SMEs; and Group discussion on opportunities and challenges in promoting the circular economy in SMEs.

Innovation for Productivity

i. Robust Ecosystem and Regulatory Framework

Workshop on Decentralized Governance and Public Accountability

Decentralization is a process where a central authority transfers responsibility for planning, management, and raising and allocating resources to field units of public agencies of subordinate levels of government. Many countries have begun to undertake decentralization to make government more efficient, responsive, and accountable. The core idea of decentralization is that local organizations may be more efficient and effective at providing public goods of a local nature such as schooling or trash collection than the national government because they have better access to information on local affairs and are better connected to their constituents. However, decentralization may lead to less accountability and more corruption if local areas are less educated and/or have fewer resources.

In collaboration with the NPO Indonesia, the APO Secretariat organized a digital multicountry workshop on Decentralized Governance and Public Accountability, 23–25 March, to deepen understanding of decentralized governance, its impacts on key outcomes like public accountability, different models and practices of decentralization, and how to measure decentralization outcomes. A total of 32 participants from 12 member economies attended, facilitated by five resource persons from India, Indonesia, Nepal, the Philippines, and Thailand.

Program coverage: Decentralization and accountability; The Philippines' experience of designing and implementing fiscal decentralization; Decentralization and accountability in the Philippines; Decentralization, devolution, and local governance in India; Village governance and accountability in Indonesia; Decentralization and the COVID-19 crisis in Thailand; and Public financial management and decentralization in Nepal.

Conference on Agricultural Insurance and Farm Risk Management

Agricultural insurance plays a significant role in a holistic risk management system that includes maintaining farm health and safety. Farm-based measures cannot protect against severe threats like typhoons, floods, tsunami, and droughts. Such disasters require market-based, institutionalized insurance protection mechanisms. Overall, not only does agricultural insurance protect farmers from financial collapse but also ensures national food security through farm risk management. It plays an important role in reducing the vulnerability of national food systems to acute shocks, subsequently contributing to resilience and sustainability. However, the COVID-19 pandemic added to farmers' risk exposure, endangered food security, and brought the importance of agricultural insurance to the forefront. In this way, agricultural insurance helps meet the UN SDGs by enhancing the resilience of farmers and communities in adverse circumstances and in adapting to new challenges like climate change or pandemics.

To enhance participants' knowledge of the principles, mechanisms, and management of agricultural insurance to improve productivity and farm risk management, the APO Secretariat organized a virtual conference on Agricultural Insurance and Farm Risk Management on 15 June 2022. A total of 42 participants from 12 member economies participated and three resource persons from India, Indonesia, and Switzerland attended.

Program coverage: Parametric product and digital solutions in agricultural insurance; Agricultural ecosystem-based disaster risk reduction to cope with climate change; and Fruit and vegetable insurance to support smallholder farmers.

Workshop on Building Robust Public Policy Ecosystems through Behavioral Insights

Promoting behavioral change is one of the central goals of regulation. The APO publication *Why Behavioral Insights Matter in Public Policy* (2022) provides examples of the utilization of behavioral insights (BIs) such as allowing contractors to apply online for business licenses, resulting in shorter processing times, lower transaction costs, and improvements in overall productivity and public service quality. While there are debates on the effectiveness of BI applications, examples around the world in education, energy, the environment, finance, health and safety, labor market policies, taxes, public service delivery, etc. have provided evidence that they can improve citizens' welfare.

To deepen knowledge of the concepts and applications of BIs in the public sector's regulatory functions and policies, the MPC and APO Secretariat organized a digital multicountry workshop on Building Robust Public Policy Ecosystems through Behavioral Insights, 22–24 June. Forty-two participants from 10 APO members attended the workshop, with four resource persons from France, Germany, the ROK, and Malaysia who shared their expertise on the different topics covered in the course.

Program coverage: Behavioral public administration and governance; Behavioral science applied to public policy; Development of BI frameworks in forging policy ecosystems; Building public-sector capacity for BI; Applications of BI in regulatory policy; and BI application in the public sector: Development of the national BI guidelines in Malaysia.

Multicountry Observational Study Mission on Industry 4.0 Digital Industrial Platforms

Digital platforms and industry networks play the roles of integrating technology, industrial applications, and stakeholders in the ecosystem for business transition to Industry 4.0. While the IoT and cloud platforms assist exchanges of data and technical information, industry networks convey know-how, experiences, and resources to foster innovation-based environments for digital upgrading. Building secure, strong platforms and networks that facilitate technical and resource exchanges among businesses is crucial for comprehensive, sustainable digital transformation.

Singapore was one of the earliest among APO members in preparing for and responding to the Industry 4.0 movement, with strategic policies to cultivate talent, connect partners, and develop technological frameworks. The APO Secretariat collaborated with the SGPC to conduct a face-to-face study mission to Singapore on Industry 4.0 Digital Industrial Platforms, 23–25 November, to observe good practices and implementation of its strategies for digital transformation. Eighteen participants from 14 APO members took part in the study mission, guided by five resource persons from the ROC, Germany, and Singapore, who shared digital transformation strategies from Europe and the Asia-Pacific and identified key success factors for sustainable transformation.

Program coverage: Digital transformation: Fostering an enabling ecosystem; Mobilizing ecosystem stakeholders for digital upgrading: Experiences from the ROC; Sustainable frameworks and green business modeling for manufacturers; Digital transformation initiatives in Singapore; Linking up supply chains: National Industrial Internet of Things (IoT) platform in the ROC; Connecting stakeholders: Digital innovation hubs in the EU; and Digital transformation in businesses: Strategies and experiences from Singapore. Site visits were hosted by the

Advanced Remanufacturing and Technology Centre and Bosch Rexroth Regional Training Centre to demonstrate how government agencies, technology and solution providers, training providers, and businesses supported each other to achieve Singapore's vision for becoming a smart nation.

Workshop on National Digital Transformation

APO members have been proactively responding to the Industry 4.0 movement by applying national strategies for digital transformation in all aspects of society, such as the ROC's Digital Nation, Smart Island, India's Digital India, Indonesia's Digital Roadmap, Japan's Society 5.0, the ROK's Digital New Deal, Malaysia's Digital Economy Blueprint, Singapore's Smart Nation Initiative, Thailand's Thailand 4.0, Turkiye's National Technology Initiative and Digital Turkiye, and Vietnam's National Digital Transformation Program. They may have different priorities, but all aim to achieve comprehensive socioeconomic growth by enhancing digital literacy, inclusiveness, social welfare, and capability building, in addition to conventional focuses on infrastructure, sectoral economic growth, and digitization of businesses.

Recognizing the different contexts of APO members as well as the similar challenges they face in facilitating digital transformation, the APO Secretariat joined forces with STAMEQ in organizing a face-to-face workshop on National Digital Transformation in Ho Chi Minh City, 6–9 December, to exchange ideas on digital transformation strategies, discuss the effectiveness of national initiatives, and observe good practices in Vietnam. Fourteen participants from seven APO members attended the workshop, led by four resource persons from Germany, the ROK, Singapore, and Vietnam, who discussed policies, benchmarks, and available tools and frameworks for digital transformation and necessary capability building in the Industry 4.0 era.

Program coverage: Accelerating national digital transformation: Trends and strategies; An ecosystem approach to digital transformation; Digital upgrading in manufacturing; Identifying a roadmap for digital transformation in businesses; Human capital development for digital transformation: Strategies and practices for upskilling and capability building; Digital transformation in the ROK: Policies, progress, and prospects; and National digital transformation: Policies and experiences from Vietnam. Site visits were hosted by Qualtest 3, a government agency supporting Vietnamese businesses to ensure product quality; TC Electronics Solution, an electronics manufacturer; and Gotadi, a travel service provider, to understand how businesses embarked on the journey of digital transformation and how government agencies could support those endeavors.

ii. Innovation Capability

Workshop on Innovative Public–private Partnership Models for Improving the Sustainability of Food Supply Chains

Public–private partnerships (PPPs) in food supply chains are important mechanisms to meet the challenges from farm to fork to benefit both producers and consumers. However, more cooperation through PPPs is needed to build productive, sustainable food supply chains. Examples of potential areas where PPPs could enhance the productivity of the agrifood sector include promoting smart, digital agriculture and using quality agricultural inputs such as seeds and fertilizers. The appropriate policy environment that creates the conditions for mutually beneficial PPPs to flourish can serve the interests of all parties in ways that are equitable, transparent, and sustainable.

A virtual workshop on Innovative Public–private Partnership Models for Improving the Sustainability of Food Supply Chains was implemented 26–28 April by the Ministry of Agriculture and Ministry of Manpower of Indonesia in cooperation with the APO Secretariat. Fifty-three participants from 11 APO members attended. Three resource persons from Bangladesh, Italy, and Singapore shared the potential of PPP food supply chain models and presented innovative successful PPP models. They also led discussions on building sustainable, mutually beneficial, long-term partnerships between public and private enterprises in food-related sectors in member economies.

Program coverage: PPPs for agriculture food supply chain innovation; The 4Ps: A new approach to linking smallholders with agribusiness operators and markets; Scaling productivity packages through extension as a business; Fostering PPPs in agrifood supply chains through sustainable certification; Innovative landscape approaches for diversified livelihoods and environmental sustainability; and Government involvement in capacity building for small-scale farmers in the supply chain process.

Workshop on Innovative Technologies in Perishable Product Supply Chains for Small Farmers

Perishables such as fruit and vegetables require supply chains that reliably deliver fresh products to consumers. After harvest, long-term preservation of perishable products is difficult. Fruit and vegetables need to be sold quickly to avoid food loss and waste. Preservation of quality contributes not only to the stable supply of perishables to consumers but also to increasing farmers' income. To maintain the quality of fruit and vegetables, careful handling at harvest and proper environmental control postharvest are necessary.

To share the current status of supply chains for perishable products such as fruit and vegetables, learn about technologies to maintain the quality of perishable products throughout supply chains which could be adopted by small farmers, and enhance the productivity and competitiveness of small farmers growing perishable products in member economies, the APO Secretariat along with the Council of Agriculture, Executive Yuan, ROC, and CPC, organized a digital multicountry workshop on Innovative Technologies in Perishable Product Supply Chains for Small Farmers, 24–26 May. Forty-two participants from nine APO members attended the workshop, along with six resource persons from Japan, Singapore, and the ROC, who shared supply chain and quality control technologies of perishable products.

Program coverage: Overview of perishable product supply chains in Asia; Best practices of fresh product supply chains for small farmers in Japan; Pre- and postharvest techniques of tropical and subtropical fruit; Best practices of fruit supply chains in the ROC; Cold chains for small farmers; Postharvest techniques, facilities, and applications of Taiwanese vegetable supply chains; and Development of new bioagents for disease management and quality maintenance of postharvest fruit and vegetables.

Workshop on the Future of Regulation

Regulation is a key factor to promote sustainable, inclusive economic growth, social welfare, and environmental protection. Regulatory policy touches every sector of the economy and affects the day-to-day activities of businesses and citizens. For this reason, ensuring that regulatory practice is transparent, accountable, efficient, and effective is a top priority for any government. However, regulatory affairs are a dynamic field, and practices have evolved over the past few decades.

These have faced criticism for inhibiting growth and investment. To address that criticism and the rising demand for regulations to address environmental, health, and safety risks, numerous novel approaches have emerged. Rather than dismantling the entire regulatory apparatus, governments and other stakeholders now seek to create better, smarter regulations. Two trends are likely to pose further, far-reaching challenges: 1) technological advances and business innovations have created new ways for people to interact; and 2) the global shift in regulatory regimes allows the use of new tools and strategies for regulatory governance. To examine these and other regulatory issues, the DAP and APO Secretariat organized a digital multicountry workshop on The Future of Regulation, 29 June–1 July. It was attended by 30 participants from 10 APO members. Presentations were given by five resource persons from Australia, Malaysia, New Zealand, and Singapore, who also led discussions.

Program coverage: Challenges to regulatory systems in the current environment; Global trends in regulation; International regulatory cooperation; Systems thinking and regulatory governance; Regulatory approaches to emerging technology; From smart regulation to intelligent regulation; and Behavioral approaches to regulation: Principles and practices.

Workshop on Digital Transformation for the Public Sector

The public sector is undergoing rapid digital transformation to improve its engagement with citizens, deliver better public services, cut costs, and help deal with the COVID-19 pandemic. The pandemic has underscored the importance of digital technologies in building economic and social resilience through strategic, agile, innovative approaches and sped up the digital transformation process of the public sector. The OECD's Digital Government Index 2019 states that digital government represents an evolution from e-government. A number of APO members are leading this transformative process such as the ROC, Japan, the ROK, and Singapore in the transition to digital government.

To examine the imperatives and urgency of public-sector transformation to operate more efficiently and effectively in the digital environment, the DAP and APO Secretariat organized a digital multicountry workshop on Digital Transformation for the Public Sector, 13–15 July. Forty-one participants from 11 APO members attended, with four resource persons from Japan, the ROK, the Philippines, and UK who shared their expertise and examples of various government digital transformation initiatives.

Program coverage: Assessing the current digital infrastructure of the public sector; Open government data frameworks in the digital transformation of the public sector; Disruptive technologies and the public sector; Strengthening digital government services; Digital government transformations in the EU; and Advances and challenges in the digital transformation of the public sector in the Philippines.

Training Course on Innovation Management Standards for Enterprises

With the advent of digital technologies, the drivers of productivity and competitiveness have shifted from efficiency and quality to innovation and entrepreneurship. For businesses and industries, innovation can relate to products, services, processes, tools and technologies, management methods, and business models. With rapidly shortening product life cycles, proactively encouraging, achieving, and managing innovation have become indispensable steps for sustained productivity enhancement. The ISO 56000 series provides definitions, references, and a baseline related to innovation management. The set of standards identifies concrete references and provides guidance for innovation management regardless of the type or size of the organization.

To introduce innovation management principles and concepts along with the requirements of the ISO: 56000 set of standards for implementation, a digital multicountry training course was conducted by the APO Secretariat with support from the VNPI, 11–14 October. Thirty-two participants from 13 APO members successfully completed the training. Three resource persons from India, Pakistan, and Vietnam delivered presentations and facilitated group work. The participants divided into groups to discuss and share key learning points to solve their context-specific innovation management challenges.

Program coverage: Concepts of innovation management; Management of innovation, principles of innovation management, and strategies for innovation management; Innovation management systems in organizations and enterprises; Concept of ISO standards; Innovation management and the fundamentals of ISO: 56000; Innovation management based on ISO: 56002 and ISO: 56000: Principles and requirements for implementation; Global case studies from different sectors: Examples of enterprises with ISO: 9000/56000 certification and benefits or probable outcomes; and Model for determining innovation management capacity in organizations and enterprises.

Conference on Public-sector Productivity: Creating an Agile and Productive Public Sector in the New Era of Governance

Governments in APO member economies are preparing for the transition to a postpandemic world in response to the socioeconomic consequences of COVID-19. Public-sector entities must think about how services are delivered and how to ensure that public-sector financing remains resilient with reduced tax revenues but increased efficiency. Examining advances in technologies and innovations to enhance public service delivery and improve

the productivity of the public sector in the new normal is needed, while addressing pressures to deliver better-quality services amid continuing challenges, such as climate change issues.

The DAP and APO Secretariat organized a digital multicountry conference on Public-sector Productivity: Creating an Agile and Productive Public Sector in the New Era of Governance, 18 November, to identify and examine new areas that will shape the future of the public sector and its productivity while addressing the effects of the COVID-19 pandemic. Thirty-four participants from eight APO members attended the conference, along with three resource persons from Japan and Spain, who presented emerging technologies and innovations that could enhance public service delivery under the new normal and shared public-sector organizations' experiences in designing and implementing productivity improvement initiatives.

Program coverage: Emerging technologies, innovations, and tools; Public services in the age of social-environmental extremes; Designing and implementing productivity improvement initiatives; Reevaluating the effects of environmental regulations on innovation and productivity; and New challenges faced by the public sector.

Multicountry Observational Study Mission on Productivity and Innovation for the Digital Economy

Technologies, smart applications, and other innovations in the digital economy are being promoted to improve services in a wide range of areas, including health, agriculture, public governance, taxation, transport, education, and the environment. Digital technology adoption is evident across Asia. Applications for online purchases, transportation, and delivery services are changing the retail landscape, urban transport, and other services. The impacts of the digital revolution on the economy are vast and continuing to grow.

Among APO members, the ROK has recently adopted the Digital New Deal policy to improve the investment and regulatory environment supporting its digital economic transformation, thereby expanding and deepening digitalization progress in the country. The APO Secretariat collaborated with the KPC to conduct a face-to-face multicountry study mission on Productivity and Innovation for the Digital Economy to examine the best digital economy practices and study the ROK's strategies and policies, 20–22 December. Eighteen participants from 10 APO members took part in the study mission, guided by two resource persons from the Philippines and the ROK, who identified key organizational forms and structures in digital transformation and shared digital economy policies and strategies.

Program coverage: Digital economy; Economic digital transformation; Digital transformation; Digital strategies and frameworks; Digital platforms; Fostering an enabling ecosystem; Framing policies for the digital economy; Strategies and experiences from the ROK; Digital health center; Digital precision medical innovation research; Cultivating digital innovation technology leaders; Establishing an open digital innovation network; Solving national and social issues with ICT; Fostering national informatization; Digital transformation forms and structures; Adopting digitization and evolution of the digital economy; and Linking to innovation and productivity.

Special Program for Capacity Building of Sustainable Food Value Chains for Enhanced Food Safety and Quality in Gampaha District

In Sri Lanka, food value chains (FVCs) are receiving increasing attention as the focus of food production is shifting from the eradication of hunger and poverty to better, safer food to respond to the increasing demand of the expanding middle class for higher quality. Local consumers are more concerned about whether their food is produced and handled along the value chain in environmentally friendly and socially acceptable ways.

To assist SMEs in food-related activities in the Gampaha district to develop food safety, quality, and innovation (FSQI) frameworks to modernize FVCs and enhance productivity; establish demonstration SMEs to showcase modern FSQI processes and results of improvements in a tangible, practical manner; and enhance the consultancy and training capabilities of the NPS, a special program for Capacity Building of Sustainable Food Value Chains for

Enhanced Food Safety and Quality in Gampaha District was organized by the NPS and APO Secretariat through the hybrid modality from October 2022 and expected to be completed in August 2023. Ten SMEs in the Sri Lankan food sector are participating as demonstration companies, along with four resource persons from Japan, Sri Lanka, Thailand, and Turkiye, who are transferring knowledge and technologies on food safety and quality.

Program coverage: Online diagnosis; Onboard consultancy; Awareness program on food quality and safety; Virtual field visits to observe best practices; and Dissemination conference.

Workshop on Innovations in the Olive Oil Sector

The olive oil industry has experienced growth recently in Hatay, Kahramanmaras, and Osmaniye provinces of Turkiye. Olive oil produced in those provinces is sought after for its flavor and aroma in both domestic and foreign markets. Innovation leads to the expansion and improvement of techniques and technologies for production and distribution. Advanced technologies in the olive oil sector play a crucial role in building reliable, safe, sustainable food value chains (FVCs). For example, digital technologies such as the cloud, IoT, big data, and AI can help in developing efficient, effective FVCs.

To strengthen food safety, quality, innovation, and FVC frameworks; enhance the productivity and competitiveness of the olive oil sector through building reliable, safe, sustainable FVCs to increase market share; and build awareness in the olive oil sector of available consulting and training services to resolve product quality, branding, and marketing problems, the APO Secretariat along with the Eastern Mediterranean Development Agency, Turkiye, organized a digital in-country workshop on Innovations in the Olive Oil Sector, 28–30 November. Fifty-one participants in Turkiye attended the workshop, along with two resource persons from Spain and Turkiye, who transferred knowledge and technologies on modern olive oil production.

Program coverage: Introduction of the role of regulations and institutions in the olive oil sector; Historical production and usage areas of olives and olive oil; New techniques for olive cultivation; Innovative approaches in the olive oil extraction process; Recycling of waste and reuse for human benefit through innovations in the olive oil sector; Innovations for eliminating the negative effects of the olive oil sector; Enhancing competitiveness through product differentiation and innovation, promotion, and oil tourism; Innovations at the cultivation level and organic olive oil production; and Specialization in specific, high-value market segments.

Inclusive Productivity

i. SME Development

Workshop on Foresight for SMEs

In the current business environment, which is volatile, uncertain, complex, and ambiguous (VUCA), enterprises need to strategize not only to remain competitive and profitable but also to be resilient to overcome potential predictable and unpredictable threats. To deal with VUCA conditions, enterprises need tools and methodologies to respond to future possibilities. Foresight techniques are designed to address these issues, enabling effective policymaking and strategy formulation within organizations to mitigate potential adverse effects.

To familiarize participants with the concepts and fundamentals of strategic foresight, explain the use of foresight tools and methodology to improve the productivity of SMEs, and discuss approaches to address barriers and challenges faced by SMEs by embedding foresight at the core of business strategy, the APO Secretariat along with STAMEQ, Vietnam, organized a digital multicountry workshop on Foresight for SMEs, 20–22 April. Forty-seven participants from 14 APO members attended the workshop. Four resource persons from Australia, India, and Vietnam delivered presentations on topics related to foresight, its techniques, and approaches to managing complex future scenarios.

Program coverage: Sustaining productivity growth in SMEs through strategic foresight; Overview of strategic foresight; Approaches to managing and responding to complex future scenarios; Understanding various foresight techniques; Driving change to be future-ready; and Policy roadmap to enhance FDI through foresight: Vietnam's experience. The program included group work by participants on developing strategy through the application of foresight techniques and presentations on the potential solutions identified.

Conference on Agrifood Evolution

The agrifood sector constantly faces challenges that continue to evolve over time. This includes global warming, which decreases harvests and reduces crop quality. Consumers' preference for fresher, appealing produce poses another challenge as it leads to increased use of pesticides, wasteful packaging, and greater food loss and waste. Recently, supply chains have presented major new challenges. The massive disruptions caused by the pandemic are not over yet. Amid this, a new trend of scarcity in several key commodities is emerging due to stoppages in exports by key producing countries.

To understand the latest emerging and future challenges faced by the agrifood sector, prepare for sustainable management of the agrifood sector in light of the evolving challenges, and promote resilient agrifood businesses to ensure food security for citizens, the APO Secretariat organized a digital multicountry conference on Agrifood Evolution, 31 August. Thirty-five participants from 10 APO members attended the conference, along with four resource persons from Japan, the ROC and Thailand, who presented future aspects of the agrifood sector.

Program coverage: Policies to evolve the agrifood business in the future; Preparing for future risks in agriculture; Challenges of food manufacturing in the future; and Localization and globalization of future food in Japan.

Multicountry Observational Study Mission on Enhancing Service SMEs' Competitiveness through Digitalization

Digital tools bring many significant benefits for firms, including those in the service sector. The COVID-19 pandemic has heightened the importance of SME digitalization since these technologies are essential for business continuity. During the pandemic, restaurant and tourism providers in the Asia-Pacific have been pushed to adopt digital platforms and tools to tackle disruption. They reduce transaction costs, provide better access to information, and facilitate faster communications between staff, vendors, and other stakeholders. Digital tools also help SMEs integrate more easily into global markets by reducing transport costs and improving access to finance, training, and recruitment using online channels. Overall, digitalization is a key driver of productivity growth for SMEs.

In collaboration with the MPC, the APO Secretariat organized a digital multicountry observational study mission on Enhancing Service SMEs' Competitiveness through Digitalization, 7–8 September, to promote digitalization for SMEs in the service sector, examine digitalization strategies to enhance service-sector SME competitiveness, and share best practices of digital tool and framework adoption by service-sector SMEs. Thirty-four participants from 12 member economies attended the workshop, which was facilitated by three resource persons from Malaysia and Singapore.

Program coverage: Measuring SME digital readiness; Key trends in the digital transformation of SMEs in the service sector; Digital tools and practices for service-sector SMEs; The service sector and the platform economy; and Digital security and privacy for SMEs.

Workshop on Innovative Business Models for Rural Tourism

With its abundant natural and cultural resources, the Asia-Pacific region has many growth opportunities in the tourism sector. However, the region faces various challenges that include establishing sustainable businesses with limited infrastructure and financing, attracting and retaining travelers amid competition from other destinations, and adapting to the digital era and a drastically changed postpandemic environment. Many rural communities

lack experience in and knowledge of developing unique solutions to overcome these challenges, and they rely on initiatives by the government and tourism industry. Capacity development at the rural community level is thus required.

To introduce innovative business models in rural tourism and identify key success factors to create and adopt innovative business models in rural tourism in APO members, a virtual workshop was held by the NPO of Pakistan and APO Secretariat, 12–14 October. Twenty-two participants from 11 APO members attended, along with six resource persons from Indonesia, Malaysia, Pakistan, the Philippines, and Saudi Arabia who shared global perspectives from the UN World Tourism Organization (UNWTO) and policies and best practices from Indonesia, Pakistan, and the Philippines. Participants worked in groups to discuss and share key drivers and actions on the final day based on their learning and discussions.

Program coverage: The role of innovations in rural tourism; Overview of innovative business models in rural tourism; Lomboy Farms: Pioneers in Philippine viticulture; Innovative rural tourism models in Pakistan; Case studies from best village tourism under the UNWTO; and Key considerations in accelerating innovations in rural tourism.

Multicountry Observational Study Mission on Digital Farming for Small-scale Farmers

Digital technologies such as mobile technologies and remote-sensing services are spreading in the agriculture and food sector. Compared with large-scale farmers, small-scale ones have more difficulty in introducing such technologies due to their costs. To avoid unnecessary investment, small-scale farmers need to have clear objectives when adopting digital technologies and consider the balance between their costs and benefits. Agriculture challenges include global warming, which decreases harvests and reduces crop quality; and consumers' preferences for fresher produce, which can lead to increased use of pesticides. Recently, the pandemic and restrictions on human contact and movements have been added to the challenges. Digital technologies provide advantages such as labor saving, higher-quality harvests, and more efficient farm management.

To introduce digital technologies for adoption by small-scale farmers, present successful models of the use of digital technologies on small-scale farms, and examine methods to enhance the productivity and competitiveness of small-scale farmers, the APO Secretariat along with the Council of Agriculture, Executive Yuan, ROC, and CPC organized a digital multicountry observational study mission on Digital Farming for Small-scale Farmers, 16–17 November. Thirty-seven participants from 11 APO members attended the study mission, along with five resource persons from the ROC and Japan, who introduced best practices of digital farming for small-scale farmers.

Program coverage: Digital and innovative farming is key to developing sustainable agriculture; Toward a new era of digital farming for smallholders: Case studies of crop cultivation management, pest monitoring, biological control, and queen bee-free pollination of small-sized greenhouses in Taiwan; Best practices of smart rice farming in Japan; Intelligent transformation and personnel demand of the native chicken industry in Taiwan; and Globalized development of smart aquaculture in Taijing agriculture biotechnology.

ii. Broad-based Engagement

Workshop on Women's Entrepreneurship in the Digital Economy

Entrepreneurship is a major impetus for innovation, productivity, and long-term economic growth. The digital economy provides fertile ground for entrepreneurs to flourish as digital technologies open up opportunities for greater diversity, equity, and inclusion in society and enable more talent, including women entrepreneurs, to participate in economic activities. Access to enabling technologies, markets, and opportunities for greater gender equality, however, does not immediately translate into a supportive business environment for women and their meaningful participation in the economy. To fully harness the benefits of digital technologies for empowering women and unleashing their potential for enhancing productivity and innovation, it is necessary to understand the relationships and synergies among technologies, entrepreneurship, and women's participation and leadership.

The CPC and APO Secretariat virtually co-hosted a workshop on Women's Entrepreneurship in the Digital Economy, 11–13 May, to discuss and provide references on government strategies and international initiatives for women's empowerment and leadership in businesses. Forty-two participants from 12 member economies were selected to attend this workshop, led by four resource persons from the ROC, ROK, and USA, who analyzed and discussed the implications of digital technologies on entrepreneurship and women's empowerment.

Program coverage: Digital technologies: Barriers to or enablers of women's empowerment?; Women's empowerment and the role of entrepreneurship; Breaking gender barriers and bridging the digital divide; Success story: Become a fearless entrepreneur in the digital economy; Building a conducive environment: Access, skills, and capabilities; and Strategies and policies promoting women's entrepreneurship.

Workshop on Inclusive Rural Development

Agriculture is an essential sector and major source of employment in many Asian countries. For comprehensive, productive rural development, it is important to involve women, youth, and persons with different abilities in rural community activities. These groups are often overlooked, but their inclusion is essential for productivity growth. Governments and enterprises can contribute by engaging disadvantaged groups in meaningful employment and supporting improvement in their socioeconomic status.

A digital multicountry workshop on Inclusive Rural Development was hosted by the APO Secretariat, 25–27 July. This workshop examined inclusive rural transformation and shared innovative examples of social inclusion and rural economic revitalization initiatives of governments, private-sector enterprises, and public–private partnerships. The workshop objectives were: 1) promoting the inclusion of disadvantaged social groups in rural development; 2) reviewing government policies on rural inclusiveness for enhancing rural productivity and revitalizing rural economies; and 3) sharing successful inclusive rural development models and discussing the roles of the public and private sectors in their adoption. There were 33 participants from 11 members. Four resource persons from the ROK, India, and the Philippines gave presentations and facilitated discussions with participants.

Program coverage: Trends, principles, challenges, and opportunities for inclusive rural development; Promoting social inclusion for rural development; Government policies and the roles of government, the private sector, and public–private partnerships in inclusive rural development; Enhancing rural economies and inclusive rural transformation; Social entrepreneurship as a pathway to rural revitalization and sustainable development; Successful inclusive rural development models; and Challenges, opportunities, and roles of the public and private sectors for inclusive rural development across member economies.

Workshop on Developing Healthy Workplaces for SMEs

The well-being of workers in the rapidly changing environment caused by COVID-19 pandemic-related restrictions and digitalization must be considered. Where to work, how to work, and who should work have become increasingly important considerations. In the Asia-Pacific, SMEs are dominant, and they employ the majority of workers. Therefore, SMEs need to adopt, establish, or strengthen measures to improve health and well-being in the workplace. They must also adjust to the postpandemic and digital environments. However, many SMEs have limited know-how and finances to do this, and policies supporting them are limited.

To examine frameworks and good practices for developing and operating healthy workplaces in SMEs, a virtual workshop was held by the DAP and APO Secretariat, 3–5 August. There were 43 participants from 11 APO members, with four resource persons from the Philippines and UK.

Program coverage: Overview of health and well-being at the workplace: Linkages to productivity; Policies and frameworks for health and well-being at the workplace; Health and well-being considerations for the digitalized postpandemic era; and Stakeholder initiatives.

Workshop on Rural Tourism for Sustainable Development

Many rural communities are now facing challenges in repositioning tourism in the rapidly changing environment caused by the COVID-19 pandemic, digitalization, and growing awareness of the need to preserve the natural environment and promote equality among people. Successful development of rural tourism must achieve sustainability from the economic, social, and environmental aspects. In addition to financial gain, it must support rural communities in retaining their unique natural and cultural heritages and strengthen bonds across gender, age, and occupations. It must also conserve natural resources including biodiversity.

To examine holistic, comprehensive frameworks to develop sustainable rural tourism in APO members, the APO Secretariat along with the Ministry of Village, Development of Disadvantaged Region, and Transmigration of the Republic of Indonesia and Ministry of Manpower of the Republic of Indonesia organized a digital multicountry workshop on Rural Tourism for Sustainable Development, 24–26 August. Forty-eight participants from 13 APO members attended, along with resource persons from Indonesia, Japan, Malaysia, the Netherlands, and Spain who shared global perspectives, policies, and best practices. The participants worked in groups to discuss and share key learning points to solve their context-specific challenges.

Program coverage: The role of tourism in sustainable rural development; Positioning rural tourism and agritourism as subsectors in the global tourism market; Tourism—a key driver for rural development; Sustainable tourism with indigenous and local content; Sustainable rural tourism in Japan; Kahawa Shamba tourism project; Case study from a village in Indonesia; and Key considerations in developing sustainable rural tourism in the Asia-Pacific.

Workshop on Demographic Trends and Their Implications for Productivity

Population trends vary widely among countries and regions. In the Asia-Pacific region, Japan, the ROK, and Singapore are among the top in terms of life expectancy, but declining fertility rates mean that the number of working-age people is decreasing. Favorable demographics can produce a virtuous cycle of wealth creation when combined with appropriate health, labor, financial, human capital, and growth-enhancing policies. The presence of these complementary factors, however, must be cultivated to realize the demographic dividends of economic growth. Overall, analyses of and data on demographic trends provide valuable insights for setting economic policy as they influence economic growth rates, productivity growth, living standards, savings rates, consumption, investments, etc.

To examine demographic trends and issues in APO members and their implications for productivity and economic growth performance, the APO Secretariat along with the KPC organized a digital multicountry workshop on Demographic Trends and Their Implications for Productivity, 14–16 September. Forty participants from 12 APO members attended the workshop, with four resource persons from Australia, the ROK, and the Philippines who shared their knowledge and expertise on demographic trends and productivity performance.

Program coverage: The role of demography in productivity; Demographic changes and challenges in the Asian region; Population change, the labor force, and productivity; Adapting to the rapidly aging Asian population; A model of overall productivity readiness; Demographic transition and population policy in the ROK; and Sectoral shift, technological change, and older labor. A group discussion session was held to share country cases.

iii. Productivity Gainsharing

Workshop on Productivity-linked Wage Systems in the Service Sector

The pandemic has affected most service enterprises. However, signs of recovery are emerging, particularly in the tourism-related sector. Better-paid, more highly skilled workers are needed to rebuild tourism. In this context, the practice of productivity gainsharing could attract and retain higher-quality, more productive workers in this sector. Productivity-linked wage systems (PLWS) have been identified as methods to assist organizations in putting

gainsharing schemes into practice. They have also proven effective in increasing profitability and organizational competitiveness.

In collaboration with the MPC, the APO Secretariat conducted a digital multicountry workshop on Productivity-linked Wage Systems in the Service Sector attended by 56 participants from 15 APO members. The workshop was facilitated by four resource persons from Japan, Malaysia, and Singapore.

Program coverage: Paradigm shifts in service-sector productivity measurement; Productivity in firms and performance-related pay; Productivity measurement and its linkage to profitability; Introduction to PLWS; Introduction to the e-Shared Prosperity Organization (eSPO) framework; Developing PLWS in organizations: Productivity gainsharing in the service sector; and Issues and challenges in implementing productivity gainsharing initiatives. There were also breakout sessions to discuss cases and share country experiences.

Workshop on Performance Management Systems and Productivity of the Public Sector

Performance management systems are tools to measure, control, and improve operations to achieve strategic goals. In the public sector, they are applied to set standards for improving the performance, productivity, and quality of public service delivery. Performance management has gained momentum in the public sector as a strategic approach to the management of public resources for efficient, effective performance. However, recent advances and issues in implementation call for reexamination of existing performance management systems, especially in quantifying improvements in behavior, motivation, and processes in an evolving, postpandemic environment.

To examine existing systems and formulate strategic plans for promoting advanced performance management systems in the public sector to make it more future-ready, the NPS and APO Secretariat organized a digital multicountry workshop on Performance Management Systems and Productivity of the Public Sector, 24–26 August. Forty-three participants from 10 APO members attended the workshop, with resource persons from Australia, the ROK, Singapore, and Sri Lanka.

Program coverage: Performance management systems and productivity in the public sector; Performance management: Organizational- and individual-level evaluation; Performance management system implementation in the public sector; The changing normative bases of public-sector performance; Merit-based recruitment and selection processes and competency assessment; Challenges in performance management systems during and after the COVID-19 pandemic; and Group discussion of country cases.

Workshop on Service Quality and Productivity Gainsharing

Productivity gainsharing refers to a dual approach that encourages more participatory engagement of employees and enhances organizational service quality. Originally a productivity tool to enhance organizational performance through the more effective participation of workers, productivity gainsharing frameworks evolved to include different models for human resources management. The effective implementation of productivity gainsharing plans promotes teamwork and creativity, while building a sense of ownership among employees. Human capital potential is therefore maximized, and high performers are retained. Designing a gainsharing incentive system is essential for organizations aiming to achieve new business goals and sustain continuous quality improvement in the long run.

Recognizing the benefits of productivity gainsharing to enhance organizational performance and quality improvement, the APO Secretariat organized a digital multicountry workshop on Service Quality and Productivity Gainsharing, 28–30 November, to promote the adoption of the productivity gainsharing concept. Thirty-nine participants from 13 APO member economies attended. Resource persons from India, Japan, and the UK explained productivity gainsharing frameworks, their pros and cons, and various schemes for implementation.

Program coverage: Productivity gainsharing vs. profit sharing; Gainsharing implementation plans; Organizational productivity indicators; Human capital strategy; Reward and compensation systems; Business sustainability and continuous improvement; High-performing work systems; Employee productive participation; and Compensation-linked productivity gain schemes.

Regional Catalyst

i. Certification and Accreditation

Training Course of Assessors for the Productivity Specialists Certification Program

The APO Certification Body Development (CBD) Program aims to develop NPOs and their affiliated organizations to become APO-accredited CBs to operate productivity specialist certification schemes. One of the important aims of CBs is building up pools of qualified assessors who are familiar with certification and assessment methods.

The NTPC, Fiji National University, and APO Secretariat organized a training course on Assessors for the Productivity Specialists Certification Program, 16–19 August. The course was attended by 40 participants and three observers from 12 APO members including five local participants from Fiji. The sessions were conducted by three resource persons from Malaysia, Singapore, and Vietnam.

Program coverage: Introduction to APO-PS 101: Requirements for Productivity Specialists; Levels of certification, prerequisites, and competency requirements for productivity specialists; Roles and responsibilities of assessors; certification and recertification process for productivity specialists; Methods for assessing productivity domain expertise; Methods for assessing process skills and people skills; Assessors' code of donduct; Case studies; Group discussions and presentations; and Course exam.

ii. Digital Learning Platform

The Digital Learning Program offers the opportunity for everyone in member and nonmember economies to enroll in APO e-courses on various subjects related to productivity enhancement. It covers a wide range of topics including manufacturing, agriculture, the public sector, and services. In 2022, the APO offered 14 new courses, while 53 existing ones were continued. The Secretariat observed an increase in completion rates of participants/enrollees in the courses.

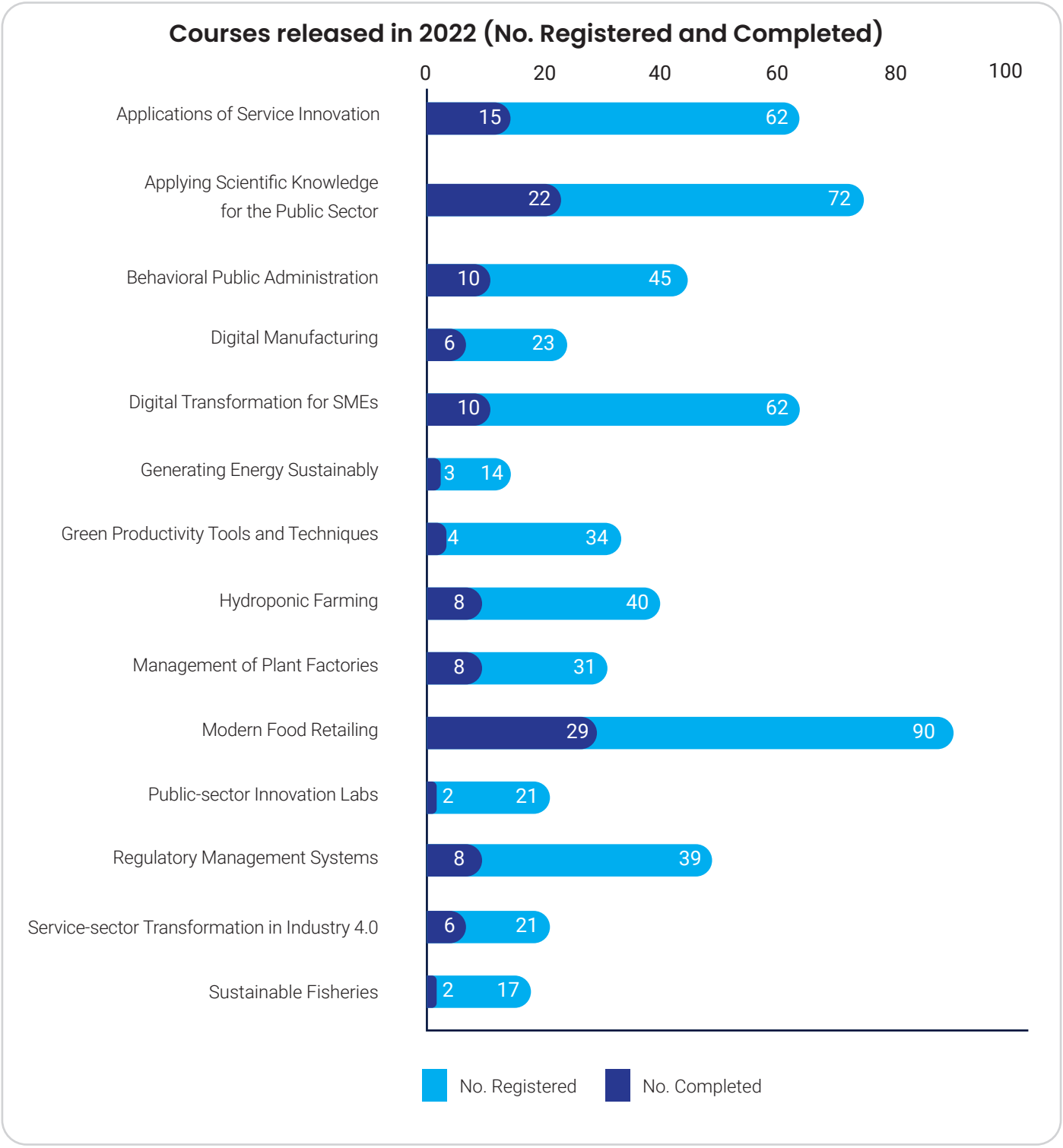
New Agricultural Productivity Courses

Four e-learning courses on agriculture were launched in 2022: Modern Food Retailing; Management of Plant Factories; Hydroponic Farming; and Sustainable Fisheries. They started from the beginning of and late 2022 and will continue. As of December 2022, 178 participants had enrolled in the agricultural productivity courses, of whom 92.69% were from members, while the remainder were from Egypt, Germany, Ireland, Mauritius, Morocco, New Zealand, Uganda, the UK, and Zambia. Thirty-one from APO members had passed the final examination required to receive the APO certificate.

New Industry, Public, Green, and Service-sector Productivity Courses

To spread productivity awareness, methods, and techniques related to technical advances and developments throughout the Asia-Pacific region and elsewhere, 10 new industry/service-specific self-learning courses were offered during the year. The topics covered were: Applying Scientific Knowledge for the Public Sector; Applications of Service Innovation; Service-sector Transformation in Industry 4.0; Digital Transformation for SMEs; Green Productivity Tools and Techniques; Generating Energy Sustainably; Regulatory Management Systems; Public-sector Innovation Labs; Behavioral Public Administration; and Digital Manufacturing. All newly released courses introduced the video format to improve content quality and engagement.

A total of 393 participants, 94.65% of whom were from member economies, registered in the industry and service-sector courses during 2022, and 54 passed the final examination and received the APO certificate. The courses also attracted participants from outside the membership, such as those residing in Australia, Brazil, Canada, PR China, Egypt, Ethiopia, Iraq, Kenya, Mauritius, the Netherlands, Nigeria, Saudi Arabia, Uganda, the USA, and Zambia.

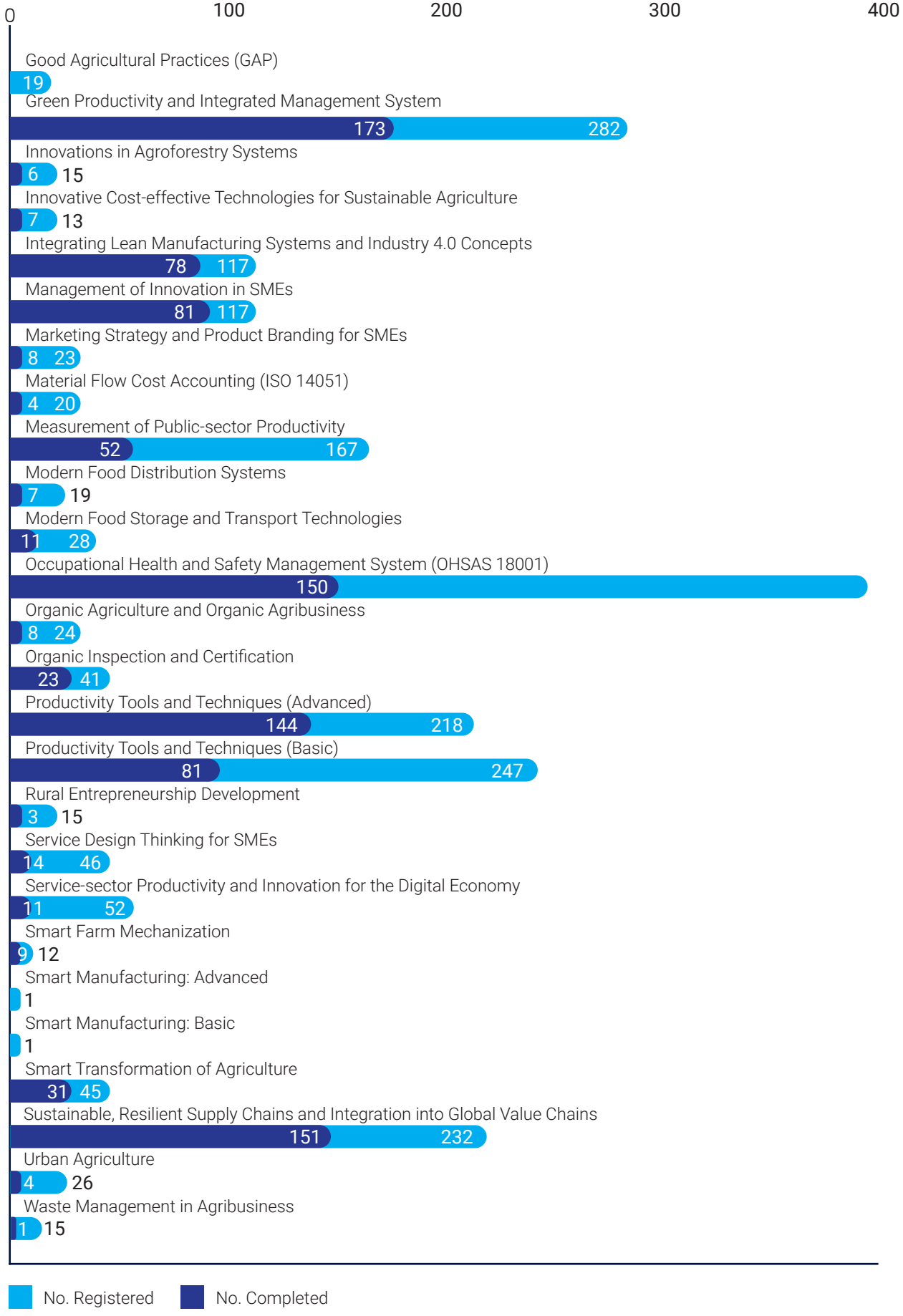


Continued Courses

For the 53 continued courses, there were 3,856 new enrollees, of whom 1,306 passed the final examination and received APO certificates. The course on the Occupational Health and Safety Management System (OHSAS 18001) attracted the highest enrollment at 395 individuals, followed by Green Productivity and Integrated Management System at 282

Continued Courses in 2022 (No. Registered and Completed)

Continued Courses in 2022 (No. Registered and Completed)



APO Productivity Talks

As an information clearinghouse, one of the APO's key responsibilities is to share knowledge and expertise on productivity-related topics. The purpose of the Productivity Talk (P-Talk) series is aligned with that role, including the provision of up-to-date information on specific topics.

In 2020, the Secretariat began arranging a series of live P-Talks with productivity experts, representatives of international organizations, academics, and renowned specialists. Following their enthusiastic reception, the P-Talks continued in 2021 and 2022 with the addition of the P-Innovator series to promote new productivity-related innovations, research, products, and services. The one-hour live or recorded sessions are broadcast through the APO YouTube channel and promoted via social network services such as Facebook, Twitter, and LinkedIn.

In 2022, 43 P-Talk sessions were organized, featuring 48 speakers/resource persons from around the world. The sessions had an average of 3,000+ views per month, more than 3,900 YouTube subscribers, more than 1,000 likes, and 1,500 shares. The APO will continue to utilize digital platforms and seek fresh, creative ways to expand its outreach to member countries and beyond.

List of Productivity Talks in 2022

NO.	TITLE
1.	Productivity 2022: Rebound and Regrowth
2.	Public-sector Talent Management
3.	Empowering the Female Rural Workforce
4.	Productivity-enhancing Technology for Fisheries
5.	Accelerating Agrifood Innovations
6.	Innovative Cold Chain Equipment for Fresh Food
7.	Postpandemic SME Regrowth
8.	Syrinx: Voice-restoring Technology
9.	Intelligent Automation in the Service Sector
10.	Productivity Outlook: Trends and Linkages
11.	Financing Energy Conservation for SMEs
12.	Food-sector Innovations
13.	Micromobility and Productivity
14.	Renewable Energy for Rural Areas
15.	Biodigesters and Green Productivity
16.	Smart Healthcare
17.	Data Analytics for Fishery Productivity
18.	Competitive, Profitable, New-normal SMEs
19.	Digital Transformation for the Public Sector

NO.	TITLE
20.	Preparing Future Talent
21.	Agritech Innovations
22.	Productive, Climate-smart Agriculture
23.	Genome-edited Tomatoes
24.	Overcoming the Middle-income Trap
25.	Smart Green Manufacturing
26.	Innovation Agencies for Productivity
27.	Enhancing Productivity through DXPO
28.	Productivity Transformation
29.	Supply Chain Risk Management
30.	Women's Empowerment in the Digital Age
31.	Urban Farming for Productivity
32.	Mizunigol Robotic Weeding Management Technology
33.	Managing Ethics in the Public Sector
34.	Solar Cow Systems: Innovation for Inclusive Productivity
35.	Leading Productivity in the Digital Era
36.	Environmental Innovation for Productivity
37.	Industry 4.0 Behavioral Insights
38.	Agri Innovations from Bioprime
39.	Site Management Robots
40.	Business Analytics for SME Productivity
41.	Interactive Networking in Agribusiness
42.	Inclusive Rural Development
43.	Key Insights from the 2022 APO Productivity Databook

iii. Research and Program Development

APO Productivity Databook and Database

The APO conducts annual research projects on productivity measurement and developed a comprehensive productivity database. The *APO Productivity Databook* presents detailed analytical reports on recent and long-term productivity and economic performance of 31 Asian economies along with the USA as a reference. In addition to the productivity accounts of each economy, regional productivity accounts for six economic groups, the APO21, Asia25, East Asia, South Asia, CLMV, and ASEAN6, are included for easy comparisons based on 2017 benchmark estimates of purchasing power parity published in April 2020 by the International Comparison Program. The effects of the COVID-19 pandemic on Asia-Pacific economies are analyzed and discussed in detail.

Sets of productivity indicators, measures, and data under an internationally harmonized measurement framework are included.

The 2022 edition of the *APO Productivity Databook* was part of ongoing efforts to support APO member economies in coping with current challenges, including postpandemic revival, and contribute to their sustainable socioeconomic development through enhancing productivity. The 2022 edition was published in November and focused on the quality of economic growth, with comparisons among APO members at different development stages. It covers Asian economic development from 1970 to 2020, with projections of growth and labor productivity improvement through 2030.

Program coverage: Comparative analyses of labor productivity and sources of economic growth; Forecasting Asian economic growth and productivity indicators; Total factor productivity analysis; and APO Produtivity Database.

Research on Labor Market Policies for Changing Market Demands

Adequate labor market policy responses are needed to avoid the loss of jobs due to technological progress. Several prominent studies indicated an impending shift in the labor markets of developed and developing countries from reaping the benefits of adopting digital technologies. They warned that automation resulting from the application of digital technology would cause job losses on a scale disrupting an economy's trajectory to prosperity.

To avoid technology-driven structural unemployment, APO members need skill adjustments, policies, and programs commensurate with the evolving demands of the labor market. Many current labor force skills are likely to become irrelevant in the near future, with new, more specialized ones emerging. The APO launched a research project to investigate changing labor market demands and suggest how policymakers, governments, and relevant stakeholders should prepare the workforce to cope. Twelve researchers are involved in the project, led by a chief expert from the ROC. The final research output was published in April 2022.

Program coverage: Review of national labor training and reskilling strategies; Labor market transition opportunities; and Strategic policy directions for cultivating new talent for the future.

Research on the Complementarities of the Circular Economy and Green Productivity

Among efforts to achieve economic progress while tackling environmental issues, Green Productivity (GP) stands out as a holistic approach. The GP concept was formulated as a strategy for simultaneously enhancing productivity and environmental performance for overall socioeconomic development. With the emergence of new approaches to sustainability, there is a need to study the complementarities between these concepts and GP. The circular economy with its potential vast contributions to sustainability was chosen as a subject of study by the APO.

Research was initiated in 2021 to examine and map out national circular economy principles and policies being evolved by APO members. It also aims to analyze complementarities between circular economy principles and GP. One chief expert was assigned to lead a team of 12 national experts from Bangladesh, Cambodia, the ROC, Fiji, India, Indonesia, I.R. Iran, Malaysia, Pakistan, the Philippines, Thailand, and Vietnam. Several coordination meetings were held online among these experts. The results of this research were published in 2022. The findings will enrich and elevate GP practices, ensuring its continued relevance to address emerging, pressing global issues through the current development of GP 2.0. This research also achieved one of the strategic objectives of the APO Vision 2025 of promoting robust, proactive GP.

Program coverage: Green Productivity; Circular economy; Environmental performance; Productivity enhancement; Socioeconomic development; Sustainability; and National policies.

Research on Innovation-led Productivity Growth for Middle-income Trap Avoidance

Innovation is an important source of growth when a country reaches the rank of middle-income economy (MIE) and moves closer to the technological frontier. Fostering innovation to boost productivity performance and economic growth is a way to avoid the middle-income trap, a challenge for the majority of APO members. Sustaining the contribution of total factor productivity (TFP) to overall GDP growth and evolving into the high-income category are the ultimate goals of many APO member governments.

To support member governments in analyzing the bottlenecks that middle-income members are facing, research was initiated in 2021. It aims to estimate the contribution of innovation to the productivity performance of MIEs, examine innovation-related policies that support MIEs, and study the lessons from members that have avoided the trap to reach the high-income level. Seven national experts from Bangladesh, Cambodia, India, Pakistan, Sri Lanka, Thailand, and Vietnam were assigned to determine the status and make recommendations to their governments. A panel of two experts from Japan and Singapore was assigned to peer-review the work of national experts. A research report finalized in 2022 is expected to provide inputs to policymakers in leveraging innovation to enhance productivity performance for middle-income trap avoidance.

Program coverage: Middle-income countries; Innovation-led productivity growth; TFP; Middle-income trap avoidance; and Policy recommendations.

Research on an Aging Asia and Pacific: Preparing for the Future

The rapid acceleration of growth in the population aged 60 years and older poses many social and economic challenges, such as a declining workforce, a squeezed middle where the shrinking workforce will be forced to pay higher taxes to support senior citizens' pensions, economic slowdowns, rising healthcare costs, etc. A shrinking workforce will also eventually affect the prospects for productivity growth. Preparing society for population aging as early as possible in advance with the right public policies is crucial, as it will be too late to prepare at the last minute.

An APO research project started in October 2021 to examine how three participating member economies are attempting to cope with the challenges of graying societies and identify measures and solutions for better readiness. Recommendations for effective public policies on healthcare, pensions, and increasing birth rates were made. The five researchers contributing to the research were led by a chief expert from the ROC. The project was completed in December 2022.

Program coverage: Updates and analysis of aging populations; Measurements for aging societies; Sectoral impacts of an aging society; and Forward-looking policies.

APO Productivity Outlook 2022

In its role as a think tank, the APO has conducted annual research to monitor productivity trends and economic growth performance in its member economies. Moreover, to better reflect productivity prospects and step up efforts to provide support through evidence-based policy analysis to member economies, a research project on the sectoral productivity outlook is necessary.

A study on the *APO Productivity Outlook* focusing on the analysis of sectoral productivity was initiated in 2021. A partnership with the Korea Development Institute, a renowned think-tank in Asia and the Pacific, was formed to conduct the research. The inaugural edition of the *APO Productivity Outlook* published in 2022 focuses on the manufacturing sector, the backbone of Asian economies in terms of competitive, sustainable growth and employment. To draw implications for the future of manufacturing in the region, effects such as production and valued-added inducement, forward and backward linkages, and employment inducement are analyzed. The *APO Productivity Outlook 2022* provides in-depth insights on productivity prospects in the manufacturing sector to track the quality of economic growth. Cross-country comparative analyses of the factors, levels, and growth rates of manufacturing productivity in selected APO member economies are included.

Program coverage: Cross-country comparative analyses; Total factor productivity; Determinants of manufacturing labor productivity; and Manufacturing labor productivity outlook.

APO–OECD Review of Long-term Productivity Growth Statistics and Estimating Methods

The joint effort by the APO and OECD to develop improved, more comparable productivity statistics across their member economies, refine the methodology for productivity measurement, and produce a sustainable productivity measurement tool entered its second phase in 2022. Phase 2 of the collaboration focused on the determinants of multifactor productivity (MFP) growth. It included an overview of the main drivers of MFP growth identified in the economic literature, a comparative analysis of different measurement approaches, and an assessment of the relevance of different drivers across countries. The report also addressed the impact of the COVID-19 pandemic and restrictions enforced to control it on productivity growth and firm/human capital.

The final output of the collaboration project was delivered in November. A virtual launch and dissemination of the results of the research on the main drivers of productivity growth was conducted on 8 November, presented by the APO Secretary-General, OECD representatives, and the researchers involved.

Program coverage: Determinants of MFP growth; Comparative analysis of different measurement approaches; Assessment of the relevance of different drivers across countries; and Long-term productivity growth.

Research on Need Assessment on Innovation Management

Due to rapid economic growth in Asia, many countries have moved from low-income to middle-income status. However, these middle-income economies (MIEs) face difficulty in sustaining growth and evolving into high-income ones. This could be due to their inability to compete with low-income, low-wage economies, as well as with innovative high-skilled, high-income ones. To overcome this, MIEs must raise their productivity performance through innovation. The COVID-19 pandemic has been the most difficult, challenging event in many people's lifetimes. At the same time, it also offered opportunities in the form of innovations, ranging from radical changes in products/processes/services to technological innovations. Implementing innovation management activities is a new way for enterprises to achieve strategic goals, ensuring long-term prosperity.

The APO conducted research to examine innovation management capabilities in the selected member economies of Cambodia, the ROC, India, Indonesia, I.R. Iran, Pakistan, the Philippines, Singapore, Thailand, and Vietnam and analyzed their status and challenges. The research report recommended models and best practices for implementing, scaling up, improving, and evaluating innovation management systems at the organizational level to promote robust innovation ecosystems under the APO Vision 2025. The report, titled *Innovation Readiness Assessment: Methodology and Framework*, was released in December to serve as a guide for readers in member economies and elsewhere to align with the latest innovation management standards and enhance innovation-led productivity growth.

Program coverage: Data collection and analysis of innovation management systems in selected APO member economies; Interviews with selected firms on innovation management systems; Generating a framework and recommended approaches for all member economies; and Seminar to launch the research report.

Labor Productivity Index

In working together to enhance labor productivity in the region, the APO and ASEAN Secretariat carried out a joint study on labor productivity in the ASEAN region in 2020. The study concluded that globalization, the digitalization of economies, and aging populations will affect APO and ASEAN economies' labor productivity substantially in coming years. It also showed that labor productivity growth in the region had resulted from capital deepening, which indicates greater growth potential by improving human capital.

The joint study continued in 2021 to develop the Labor Productivity Index to evaluate the effectiveness of policy measures, comprising the four pillars of labor quality, productivity gainsharing, productivity culture, and labor market policies. Through the development of the index, individual input variables can be identified, measured, and suggested for better policymaking and implementation to boost labor productivity. The activity in 2022 was to refine the methodology, update the dataset, and undertake capacity-building activities on the development index. The activities were completed in December. An expert on labor productivity policy and measurement from the Philippines led the project.

Program coverage: Trends in labor productivity growth in the APO–ASEAN region; Factors contributing to labor productivity growth; Labor Productivity Index development; Policy recommendations for sustainable labor productivity growth in APO–ASEAN members; and Workshops on the development of the Labor Productivity Index.

Intercity Benchmarking Research on Hotel Productivity in Asia

The COVID-19 pandemic adversely affected the hotel industry across APO member economies, particularly in cities where the economies were heavily dependent on foreign tourists. The loss of tourism revenue also affected other businesses and employment opportunities. Hotels had to change operational processes and reduce staff due to low profitability. Productivity also decreased. It is important to understand productivity levels in the hotel industry by providing benchmarking indicators against which they can compare their performance with that in cities elsewhere.

The APO conducted joint research with the Singapore Tourism Board by commissioning Frost & Sullivan to benchmark and compare the overall productivity levels of the hotel industry in Bangkok, Hong Kong, Kuala Lumpur, Seoul, Singapore, Taipei, and Tokyo. In the resulting publication, key factors contributing to hotel productivity were analyzed and practical recommendations on best practices to increase productivity made. The report was published in January 2023, and the APO hopes that the innovative strategies and technologies for enhancing hotel productivity described will be adopted in other members.

Program coverage: In-depth research on and comparative analysis of hotel productivity indicators across cities and tiers; and Recommendations, insights, and best practices to be promoted in the hotel industry.

Research on Digital Disruption: Policy Tasks and Responses by Governments

New technologies have a beneficial impact on the digital economy, resulting in higher economic growth, increased productivity, and improved social outcomes. Previous studies indicated the variability of productivity impacts but gave few details on which government policies were the most important. A research team led by Professor Steve Burdon of the University of Technology Sydney was appointed by the APO to examine policies with the greatest impact by interviewing senior government officials, businesspeople, and academics in Indonesia, the ROK, and Malaysia.

Their report, *Powering National Outcomes from New Digital Technologies: An Analysis of Government Policies to Maximize the Economic and Social Benefits*, will be published in January 2023. A five-step process was suggested to be followed by each individual country. This will enable government policy officers to use the best practices of comparable economies among APO members and optimize their productivity, economic growth, and social outcomes.

Program coverage: In-depth research and analysis on the impact of digital disruption in selected APO member economies; Interviews with key stakeholders in advanced countries; Socioeconomic data collection in selected member economies; Generating a framework and recommended approaches for all member economies; and Seminar to launch the research report.

Research on Smart Agricultural Transformation for APO Member Countries

The APO initiative to transform agriculture is a comprehensive effort to respond to the most pressing challenges faced while maximizing the opportunities they present. Transforming agriculture can enhance its role as a primary connection between people and the planet. The initiative can also help meet multiple UN SDGs. However, certain prerequisites must be met for optimal agricultural transformation. Integrating transformation strategies into national economic development plans is one necessary condition but not sufficient in isolation. Other readiness factors must be addressed for the transformation to be successful.

To identify those readiness factors, the APO conducted research on Smart Agricultural Transformation (SAT) for APO Member Countries. Chief experts from the ROC and Philippines and national experts from India, Indonesia, Pakistan, Thailand, and Vietnam formulated a set of indicators for readiness assessment and analyzed gaps in benchmarking against advanced transformations in other countries. The final research output to be published in March 2023 suggests that member governments invest in the basics of SAT, including conventional rural infrastructure, R&D, and rural human resources, with the inclusion of smallholders. The chief experts also assisted the APO in disseminating the results in a Productivity Talk.

Program coverage: National readiness assessment for SAT; Country case studies on SAT; and Policy recommendations to move toward SAT.

Research on Reskilling Workers to Enhance Labor Productivity

Structural unemployment caused by technological progress of workers whose skills do not match changing requirements for improving efficiency and productivity is a concern for policymakers. A comprehensive, inclusive national reskilling strategy, ensuring that workers have opportunities to either broaden or update their existing sets of skills to match those demanded in the emerging labor market, is critical for easing structural adjustments. The same national strategy must also be dynamic so that it can be easily adjusted to accommodate changing labor and training needs.

The APO initiated a research project on Reskilling Workers to Enhance Labor Productivity in December 2019. Five national experts from India, Indonesia, Malaysia, the Philippines, and Thailand, guided by chief experts from Australia and the ROK, are participating in the research. The objectives are identifying sustainable, inclusive models of reskilling and upskilling the existing workforce in APO members, including groups at risk of missing out on such opportunities. Although progress was impeded by the global pandemic for more than a year, the research is successful in documenting innovative models of reskilling and upskilling for improving productivity while protecting livelihoods in APO members. Recommendations on how those models could be applied in different employment contexts were incorporated in the publication. The report was finalized in February 2022.

Program coverage: In-depth country/case studies on labor reskilling; National reskilling strategies; Proposals for reskilling models; and Policy recommendations on reskilling based on country case studies.

Research on the Productive Employment Index

Generating full employment is the goal of many governments to enhance economic development. Employment-creation drives, however, need to be complemented by the quality aspects of jobs to provide a holistic picture of the performance and productivity of the workforce. Labor market policies therefore should incorporate considerations of such aspects as productive employment and the quality of employment. Productive employment allows workers a level of consumption above the poverty line. It ensures sufficient return on labor, enabling workers to escape from poverty, and therefore represents changes in their quality of life. Expanding productive employment is necessary for accelerating economic growth by shifting away from low-productivity sectors.

To analyze the impact of productive employment and quality of employment on labor market performance and formulate labor productivity policies promoting the well-being of workers, the APO commenced a research project

on the Productive Employment Index. One chief expert from India and nine national experts from Cambodia, the ROC, India, Indonesia, Pakistan, Sri Lanka, Thailand, Turkiye, and Vietnam were assigned to conduct the research. A virtual coordination meeting was held 1–2 November to discuss and agree on the overall research framework and preliminary work of all national experts. The final report will be completed in early 2023.

Program coverage: Measurement of productive employment; Dimensions of the quality of employment; Estimation of the quality of employment index; and Statistical framework of productive employment and the quality of employment.

Research on SME Transformation for Meeting the SDGs

The SME sector plays a dominant role in the economies of all countries and has the potential to promote inclusive, sustainable economic growth, employment, and decent work for all (SDG 8) as well as sustainable industrialization and fostering innovation (SDG 9). One of the means for SMEs to meet these SDGs is by upgrading their resource-efficiency practices and management. Resource-efficient operations improve input–output ratios of natural resources, hence minimizing negative ecological impacts arising from production processes.

A research project was launched in October 2022 to map out strategies and means for increasing the resource efficiency of SMEs and align their operations with national endeavors to meet the SDGs. This project is led by a chief expert from India, with national experts from Cambodia, the ROC, Fiji, India, Indonesia, Mongolia, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand, Turkiye, and Vietnam. The final report, including a review of SME transformation strategies aligning with the SDGs and a roadmap for SME transformation, will be submitted in March 2023.

Project coverage: Resource-efficiency policies for SMEs; The SDGs and SME transformation; Productivity growth; Green growth; and SME development policies.

Research on National Innovation Systems in Developing APO Members

Innovation systems matter since an economy's success depends on its national innovation system (NIS) working effectively. An efficient NIS is a prerequisite for productivity growth because innovative capacity sustains productivity. As an economy progresses toward higher productivity levels, policymakers must ensure that their innovation strategies are oriented toward strengthening the NIS and overcoming any weaknesses therein. This requires a comprehensive analysis of the NIS, including its stakeholders and actors along with their connectivity and synergy.

A research project was begun in August 2022 to examine the performance and efficiency of NIS in selected developing APO members. This project is led by a chief expert from India, with national experts from India, Pakistan, the Philippines, Turkiye, and Vietnam. The final report, including a comparative study to examine the performance and efficiency of NIS as well as strategies and policies for building robust NIS for productivity enhancement, will be submitted in March 2023.

Program coverage: Innovation policies and benchmarking; Performance analysis of NIS; R&D and innovation ecosystems; National and sectoral innovation management systems; and Incentive policies for innovation.

Research on Productivity of the Informal Sector in APO Members: Issues and Challenges

Gains from productivity enhancement are maximized when a critical mass of the economy is involved in the process. This includes the informal sector, which has a significant share of total employment in most countries. While its productivity is low, it helps reduce poverty in urban areas. The COVID-19 situation has prompted the need to reexamine issues affecting the informal sector to assist in postpandemic revival. Certain informal-sector activities have linkages with the formal sector. Even when the linkages exist, however, informal-sector workers do

not gain in terms of productivity and quality of employment. The best support for informal-sector businesses is to help them graduate to the formal sector.

The APO initiated research on Productivity of the Informal Sector in APO Members: Issues and Challenges to analyze existing productivity concerns in the sector and formulate strategies for its overall productivity enhancement. One chief expert from India and 11 national experts from Bangladesh, Cambodia, Fiji, India, I.R. Iran, Mongolia, Pakistan, the Philippines, Thailand, Turkiye, and Vietnam were assigned to conduct the research. A virtual coordination meeting was held 17–18 October to discuss and confirm the overall research framework and preliminary work of national experts. It is expected that the research results will be published in early 2023.

Program coverage: Informal-sector productivity diagnosis and mapping; Transitioning from the informal to the formal sector; Measurement of informal-sector productivity; and Policy interventions and support for the informal sector.

Research on Inclusive Innovation Policies for Economic Growth

There are unequal rates of participation in innovation, meaning that women, minorities, people with disabilities, immigrants, and those from disadvantaged socioeconomic backgrounds are underrepresented. The COVID-19 pandemic magnified the impacts of this unequal access to innovative employment on livelihoods, and thus the need for greater social inclusion in innovation across demographic groups, industries, and geographic regions is becoming more urgent. One response to overcome such unequal access is the promotion of inclusive innovation activities. Inclusive innovation can be either a more inclusive approach to innovation, or a more innovative approach to driving social inclusion, or both.

The APO initiated a research project in collaboration with NESTA, a UK innovation agency for social good, to identify the range of inclusive innovation policies employed in APO member economies; assess the direction, participation, and governance elements of each policy; examine methodologies for measuring the impact of those policies; analyze the role of the policies in removing barriers to the participation of underrepresented actors in innovative activities; and recommend how social inclusiveness challenges can be addressed. The final report is expected to be published in July 2023.

Program coverage: Inclusive innovation policy; Social inclusion; Innovation; Policy design; Productivity enhancement; Interviews with key stakeholders in selected member economies; Generating a framework and recommended policy approaches; and Seminar to launch the research report.

Review of Productivity Assessment Tools for the Agriculture Sector

The agriculture sector in Asia is continuously evolving and now transitioning from traditional low-intensity systems to more modern, higher-intensity ones, with greater capital investment and characterized by mechanization and larger-scale farms. At the same time, the sector has remained heterogeneous, with farms at different modernization levels and on different scales coexisting. With the growing scarcity of natural resources such as water and energy, declining biodiversity, and need to minimize environmental and health costs from agricultural activities, agricultural modernization in Asia must be accelerated. Agricultural productivity indicators are important tools to facilitate sustainable modernization. Their adoption by farmers, agroindustry, and agricultural policymakers is critical for sustained modernization initiatives.

The APO initiated a research project in collaboration with the International Food Policy Research Institute, USA, to review existing agricultural productivity indicators; develop a new assessment tool to facilitate sustainable modernization of the sector; promote understanding of agriculture productivity assessment tools and indicators among farmers, the private sector; and policymakers in APO members; and formulate sustainable agricultural modernization business strategies and policies based on the latest productivity assessment tools. The research focuses on India, Indonesia, the Philippines, Thailand, and Vietnam and will formulate a new assessment tool

based on the experiences of this group for dissemination to and replication in other APO members. The final report is expected to be published in September 2023.

Program coverage: Agricultural productivity indicators; Agribusiness modernization; Agricultural modernization policies; Agribusiness innovation; Sustainable agricultural modernization; Interviews with key stakeholders in selected member economies; Generating a framework and formulating a new assessment tool; and Seminar to launch the research report.

Research on Emerging Needs of APO Member Economies

The ongoing COVID-19 pandemic has halted socioeconomic progress in many areas and taught valuable lessons on how to increase the capacity for resilience and innovation. The question of why some firms are able not only to survive but also to expand during difficult times may only be explored through successful examples. Factors determining firms' resilience in navigating turbulence could help shape subsequent success and inspire other firms to avoid slumps. Continuous assessment of emerging needs will help private-sector firms rebound and regrow. It has become more relevant than ever to understand the challenges and needs in reviving the productivity movement in APO member economies in the aftermath of the pandemic.

A research project on Emerging Needs of Member Economies targeting developed members like the ROC, Japan, the ROK, and Singapore is in progress, and it will first identify the success factors of high-growth private-sector firms. The findings will then be synthesized into methods for other enterprises or member economies to achieve similar success to support productivity enhancement. The research will also look at both the business resilience and innovation capacity of developed APO members and ways to strengthen them. The final report is expected to be published in December 2023.

Program coverage: Data collection and analysis of best practices to build resilience in the private sectors of selected APO member economies; Generating a framework, methodology, and recommended approaches for selected member economies; and Seminar to launch the research report.

Research on Institutional Ecosystems to Drive Productivity

Most Asian economies have experienced a slowdown in economic growth and a decline in total factor productivity growth in recent years, exacerbated by the pandemic. There is evidence that innovation is enabling a rebound in productivity growth, however. Innovation flourishes when appropriate, effective institutional settings are in place. This requires a set of well-governed arrangements, mechanisms, and interactions among stakeholders, in other words, a conducive institutional ecosystem. Economies with well-established national innovation systems (NIS) tend to exhibit higher rates of productivity growth. An efficient NIS determines innovation capacity, which in turn contributes to the productivity growth trajectory.

The APO initiated research to examine the role and contributions of NIS in boosting productivity growth and propose policy recommendations for improving institutional ecosystems to achieve productivity gains. It will undertake comparative analysis among the NIS of participating member economies to identify best practices in institutional innovation ecosystems and develop recommendations for strengthening NIS. The final report is expected to be published in December 2023.

Program coverage: Institutional ecosystem frameworks; NIS; Institutional factors of productivity; Quantification of productivity gaps; Total factor productivity growth; Data collection and analysis of best practices in institutional innovation ecosystems; Recommendations for strengthening NIS in participating APO member economies; and Seminar to launch the research report.

Productivity Analysis Series

In the fast-changing environment affecting productivity and given the diverse stages of economic development of member economies, in-depth analyses of country-specific situations are required. Tapping the network of national institutes that are well versed in local situations and have a good understanding of key policy issues enables the APO to stay abreast of the latest productivity trends and challenges to be addressed at national level.

The APO is embarking on the *Productivity Analysis* series project by collaborating with national institutes specializing in productivity and economic development studies in member economies. The collaboration on analyses of current productivity issues also supports the widening of networks and strengthening partnerships of NPOs, giving them greater leverage as policy partners of governments. In 2022, the majority of APO members attempted to rebound from the negative impacts of the COVID-19 pandemic and revitalize their economies. The *Productivity Analysis* series focuses on productivity issues and challenges posed by the pandemic. Three research institutes in India, Pakistan, and the Philippines were selected to cooperate with the APO in drafting research papers for the series. The reports will be published in 2023.

Program coverage: *APO Productivity Analysis* series; Changes in the national landscape; Emerging national economic and social trends; Productivity issues and challenges created by the COVID-19 pandemic; Economic resilience; Best practices of productivity enhancement policies; New opportunities for rebound and regrowth; and Evidence-based productivity-enhancing policy advisory.

APO Productivity Outlook 2023

As a part of its think tank and information dissemination functions, the APO produces productivity statistics and analyses to report productivity trends and progress in its members. The *APO Productivity Outlook* series, using a sectoral productivity decomposition approach, reveals not only the source of a country's economic dynamics and characteristics but also its strengths and weaknesses. In 2022, the inaugural edition of the *APO Productivity Outlook* was published to provide key insights into prospects for productivity through a sectoral lens with a focus on the manufacturing sector and its related issues in APO members.

In preparation for the *APO Productivity Outlook 2023*, a partnership with the Korea Development Institute, a renowned think tank in Asia and the Pacific, was formed. In the second edition of the *APO Productivity Outlook* series, the focus is on the service sector. The status of the service sector in APO members with emphases on labor productivity and specific thematic issues such as emerging leading service subsectors and their underlying determinants are examined in this edition. The leading service subsectors, their value addition, and implications of service-sector expansion for development are analyzed. A set of policy implications to enhance service-sector contributions and synergy with other sectors to drive growth will be offered in the publication, scheduled for release in 2023.

Program coverage: *APO Productivity Outlook 2023*; Cross-country comparative analyses; Total factor productivity; Employment growth decomposition; Economic impacts of the service sector; Determinants of service-sector labor productivity; Business continuity; and Service-sector productivity outlook.

Policy Study on Productivity-enhancing Structural Transformation in Lower Middle-income Countries

The majority of APO economies are in the lower middle-income category. The key challenge for this group is to sustain their high growth rates. An efficient structural transformation that simultaneously generates productivity growth within sectors and shifts toward more productive sectors contributes to advancing their economic growth, while avoiding the risk of falling into the middle-income trap. This growth creates more and better-remunerated formal jobs, consequently enabling upward movement on the income ladder.

The APO initiated a study in 2022 to examine the sources of productivity growth which could enable and lead effective structural transformation of APO lower middle-income countries (LMICs). The study is conducted in partnership with the Institute of Economic Growth, a leading think tank on economic development and structural transformation in India. It focuses on the analysis of new opportunities and challenges for structural transformation in light of the changes in the pandemic-influenced economic and business landscapes and on identifying new leading sectors and determinants of productivity growth. The final research report will be published in 2023 with a set of policy recommendations for effective structural change and industrialization for APO LMICs to foster long-term productivity growth.

Program coverage: APO policy study; Cross-country comparative analyses; Economic structural transformation; Industrialization process; Industrial upgrading; Economic resilience; Labor productivity growth; Employment growth decomposition; Productivity convergence; and LMICs.

Policy Study on Productivity-enhancing Economic Structural Change in Upper Middle-income Countries

Upper middle-income countries (UMICs) among APO members have made economic leaps to reach their current status and transition from the lower middle-income rank. However, a big gap remains between the productivity performance of these UMICs and their high-income peers. The aspiration to join the high-income rank while minimizing the risk of falling into the middle-income trap and premature deindustrialization trap necessitates that UMICs embark on transformative development paths. Despite high potential, many UMICs have yet to take off.

During the COVID-19 pandemic, which has caused far greater disruptions than any preceding pandemic, transforming economic structure, leveraging technological change, and enhancing productive capacities became more urgent for UMICs to advance their growth and avoid the middle-income trap. In 2022, the APO initiated a policy study to examine prospects for change to more diversified, sophisticated structures with the emphasis on generating new sources of productivity growth, enabling UMICs to rebound from the impact of the COVID-19 pandemic and advance toward the high-income rank. The study is conducted in partnership with the Korea Development Institute, a renowned research institute and think tank in the Asia Pacific. This policy study aims at supporting the APO's UMIC members to leapfrog and achieve high-income rank through the identification of new driving sectors, factors of institutional change, and industrial upgrading opportunities at firm level. The report is expected to be completed in 2023.

Program coverage: APO policy study; Economic structural change; Diversified and productive economic structures; Industrial upgrading; Economic resilience; Labor productivity growth; Employment growth decomposition; Middle-income trap avoidance; Premature deindustrialization avoidance; and UMICs.

Policy Study on Productive Economic Structures in High-income Countries

The high-income members of the APO have triggered vast amounts of research from various perspectives on their development models. The inspiring achievements of these economies are attributable to a radical transformation of productive structures, major shifts in the sectoral absorption of labor, and significant improvements in technological sophistication. Recently, however, the productivity and economic performance of these top Asian economies has stagnated, as observed in the downward trend in their economic growth rates. Shifts toward more productive structures will be vital to break the prolonged stagnation in growth.

The COVID-19 pandemic exacerbated the productivity growth slowdown, creating disruptions across sectors in APO high-income countries (HICs). Emerging social challenges also require these economies to build resilience and adaptiveness. A number of other important questions including whether the limits of innovation are being reached, which sectors better serve as drivers of economic development, and which are the key factors for maintaining a productive economic structure have been raised. To support APO HICs in answering these questions, in 2022 the APO initiated a policy study in partnership with the Chung-Hua Institution of Economic

Research, ROC. The study analyzes prospects for expansion and diversification of production with smart services, smart agriculture, and smart industry as the key drivers for overcoming stagnation and pushing new growth. A set of recommendations on sectoral priorities for APO HIC members will be published in 2023.

Program coverage: APO policy study; Productive, diversified economic structures; High-income stagnation avoidance; Economic resilience; Labor productivity growth; Employment growth decomposition; and APO HIC members.

Research on Emerging Needs of APO Member Economies

The disruptions brought about by the COVID-19 pandemic have taught valuable lessons on how to increase the capacity for resilience and innovation. The challenges have triggered the creation of innovative ideas and successful companies and firms. The causes and factors behind those successes could be a guide to enable the development of more innovative firms. It has become more relevant than ever to understand the challenges and needs in reviving the productivity movement in APO member economies in the aftermath of the pandemic. In addition, redirecting the focus of support for sustainable business recovery will involve the adoption of innovations for higher productivity.

In parallel with another research project with the same project title focusing on developed members, research focusing on the private sectors in developing members such as India, Indonesia, Malaysia, the Philippines, Thailand, Turkiye, and Vietnam is also in progress budgeted under FY2021. By analyzing the success factors of private-sector firms, this research will generate recommendations on approaches and techniques for successful business operations. This practical know-how derived from real-world examples can be replicated and expanded based on the specific business context in each APO member so that success can be spread across the region. The final report is expected to be published in December 2023.

Program coverage: Data collection and analysis of best practices to build resilience in the private sectors of selected APO member economies; Generating a framework, methodology, and recommended approaches for selected member economies; and Seminar to launch the research report.

iv. Centers of Excellence

The APO COE Program is a catalyst for productivity promotion through bilateral and multilateral cooperation among members and between them and others outside the APO region for mutual benefit. The APO defines COE as institutions with world-class levels of competency and leadership, exemplary performance, and best practices in a specific body of knowledge or focus area which contribute to productivity. The APO COE were introduced to showcase excellence in specific productivity fields to promote mutual learning and best practices and now involve three stages of development: designation; delivery; and replication for the identification of new areas of excellence and scaling up activities for existing COE.

The activities of APO COE in 2022 mainly focused on preparation for the implementation of the new guidelines, reviewing and evaluating proposals for new COE, and proactive identification of potential COE by the Secretariat. A second expert panel meeting in June reviewed a proposal from Pakistan for a COE on Digital Learning to Enhance Productivity in Higher Education and recommended a strengthening program before approval. The Secretariat also explored the possibility of the National Agriculture and Food Research Organization (NARO) under the Japanese Ministry of Agriculture, Forestry and Fisheries as a prospective COE on agriculture. NARO submitted a proposal for the establishment of a COE on Productive, Climate-smart Agriculture which was endorsed for submission by the JPC. In addition, based on approval by the 64th GBM, the COE on Business Excellence hosted by Singapore was officially closed.

Strengthening of NPOs and Policy Advisory

i. Specific National Program

Development of the Framework of the National Productivity Network of I.R. Iran

An effective productivity network supported by a well-functioning ecosystem is one of the preconditions for a successful productivity movement. NPOs are among the key institutions responsible for formulating the plans and policies and implementing the programs of national productivity movements. In achieving the objective of creating a functioning productivity ecosystem, the NPO of I.R. Iran initiated the development of the Framework of the National Productivity Network. It aims to create a platform facilitating the development of policies and implementation of programs through synergies, participation, and collaboration among all stakeholders.

The APO provided consultancy to assist the NPO of I.R. Iran in addressing institutional needs and building its capability to develop and implement effective productivity-related strategies and programs at the national level. The project consists of three main phases: identification of key issues; consolidation and drafting plans; and development of the Framework of the National Productivity Network of I.R. Iran. The framework covers institutional mechanisms, engagement partners, productivity services, and a monitoring and evaluation system. The project started in December 2021, and final completion was planned for April 2023.

Program coverage: Preproject consultation; Diagnostic and synthesis analysis; Consultation meetings with stakeholders; Productivity stakeholders' mapping and need analysis; and Development of the network blueprint.

Development of the National Productivity Master Plan for Pakistan

To assist Pakistan in embarking on the transformation toward higher productivity, the APO launched a policy consultancy project on the Development of the National Productivity Master Plan. The master plan supports and supplements the long-term National Development Plan and Agenda with a specific focus on placing productivity at center stage in socioeconomic initiatives. The master plan envisions doubling national productivity through reliance on three pillars: vibrant industrial innovation; upgrading infrastructure; and better public governance. These productivity enhancement pillars are directly linked to five strategies with industrial transformation as one of the supporting pillars.

The project started in February and was completed in December 2022 with the submission of the final draft of the master plan to the Government of Pakistan. A team of researchers from the Korea Development Institute conducted the project in collaboration with a task force comprising representatives of various agencies, ministries, and the private sector formed by the Ministry of Industries and Production of Pakistan.

Digital Transformation Roadmap for the Development Academy of the Philippines

Strengthening the institutional capacity of NPOs is among the core activities of the APO including preparing them to become more agile, lean organizations and improve the quality of services delivered to their stakeholders. The APO initiated a project to assist the DAP in enhancing its digital capabilities by relying on the principles of knowledge management based on a framework originally intended for supporting online programs as a response to the pandemic. It was then refined to encompass a more strategic, long-term set of objectives including a roadmap for the digital transformation journey. The roadmap includes high-level objectives, milestones, and expected impact on operationalizing the framework.

The first stage of the project to assess the current digital capabilities of the DAP started in May 2022, followed by a series of consultation meetings with various stakeholders. The final report was completed in December 2022. A digital transformation expert from the ROK conducted the project.

Institutional Capacity Development Plan for the Vietnam National Productivity Institute

Formulating plans and policies for national productivity movements and implementing them to support the achievement of socioeconomic development goals are among the key responsibilities of NPOs. As the NPO of Vietnam, the VNPI is expected to reposition itself to meet evolving challenges in enhancing productivity and business performance for sustainable socioeconomic development. Vietnam is facing challenges due to declining labor productivity and overall low productivity performance relative to other economies in the region.

To assist the VNPI in this endeavor, the APO initiated a project to develop an institutional capacity development plan comprising recommendations on strategies, organizational structure, infrastructure, funding models, staffing, governance, leadership, human resources, services and programs, operations, and systems. The plan will also include benchmarking against advanced NPOs to illustrate how progress can be made.

A dissemination event to gather feedback from the general public on the draft of the report was held on 12 December. The report was finalized at the end of January 2023 for submission to the VNPI. Resource persons from Malaysia and Singapore facilitated the project, including conducting the consultation sessions with stakeholders.

Institutional Program

International Organizations/Academia

ASEAN

Continuing the collaboration with ASEAN in the area of labor productivity, the APO supported the Research on the ASEAN Labor Productivity Index (ALPI) that began in 2021. The activities in 2022 updated the ALPI database and offered capacity-building programs on it for ASEC staff and ASEAN members. The projects comprised a virtual workshop on the Concept and Inter-linkages of Variables and Strategies to Improve Labour Productivity, 5–6 December, and a capacity-building workshop on Calculation of the Data and Index for 2020, 8–9 December, held in Bali, Indonesia, by sourcing the appropriate expert. Secretary-General Dr. Indra gave the opening remarks at the workshop on 5 December.

Asia Development Bank Institute (ADBI)

In 2020, the APO and ADBI started a joint project to study the impact of COVID-19 on SMEs. The second phase in 2021 focused on the seven member economies of Bangladesh, Cambodia, Indonesia, Malaysia, Mongolia, the Philippines, and Pakistan, when a study was conducted to gain an understanding of the situation faced by SMEs and amount of damage and losses from various business perspectives. The resulting working paper was published in 2022 with recommendations for long-term government strategies to keep SMEs afloat.

United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

The APO continued communication with ESCAP in 2022 and attended the 9th session of the Asia-Pacific Forum on Sustainable Development held from 28 to 31 March; 78th session of ESCAP from 23 to 27 May; Asia-Pacific Intergovernmental Meeting on the Fourth Review and Appraisal of the Madrid International Plan of Action on Ageing from 29 June to 1 July; 17th Policy Consultation Forum of SINGG on Accelerating Collaborative Efforts to Achieve Carbon Neutrality in Asia and the Pacific on 1 November; and 5th Asia-Pacific Day for the Ocean on 30 November. Attendance at all those events was via the virtual modality.

Japan International Cooperation Agency (JICA)

The APO Secretary-General continued to serve on the Examination Committee for the 2022 JICA Africa Kaizen Award. This annual award is jointly organized by JICA and the African Union Development Agency to recognize efforts and initiatives by African companies in implementing productivity enhancement activities.

Keio University

The annual *APO Productivity Databook* has been published since 2008 with support from Keio Economic Observatory, Keio University, Tokyo. The 2022 edition analyzed the latest productivity and economic performance data and included the impact of the prolonged COVID-19 pandemic on economies in the Asia-Pacific region in the first and second quarters. That edition also aimed to support APO member economies in coping with current challenges, including postpandemic revival, and contribute to their sustainable socioeconomic development through enhancing productivity.

Korea Development Institute (KDI)

In making productivity central in the development agendas of its members as well as in strengthening the institutional capacity of NPOs, the APO provides assistance in developing productivity master plans. The plans guide national socioeconomic progress through reliance on productivity enhancement, which will raise standards of living. In 2022, in collaboration with the KDI, the APO helped Pakistan in developing its productivity master plan. The project was planned to be completed in March 2023 with the handover of the plan to the Government of Pakistan for implementation.

The KDI also provided technical expertise for the inaugural edition of the *APO Productivity Outlook* series in 2022. The report focuses on the manufacturing sector, which is essential for most members.

Organisation for Economic Co-operation and Development (OECD)

The APO and OECD signed an MOU in October 2019 to carry out joint research on ways to improve productivity measurement methodology in their member economies. This initiative explores studies on current practices and challenges in existing productivity measurement. It also provides recommendations to national statistics offices, NPOs, and other agencies involved in the compilation and analysis of productivity data to improve measurement and cross-country comparability. The project was conducted in two phases. The first started in December 2019 and was completed in January 2021, focusing on refining the methodology for productivity measurement. The second phase began in July 2021 and was completed in November 2022, marked by the release of the joint publication *Identifying Main Drivers of Productivity Growth*.

The collaborative studies provided timely, meaningful benchmarks for assessing the productivity performance of members in line with the new APO Vision 2025. The publication of *Towards Improved and Comparative Productivity Statistics* was the first outcome of OECD and APO collaboration in the year of both of their 60th anniversaries.

Participation in the OECD Global Forum on Productivity (GFP) since November 2020 continued in 2022, and APO members have benefited from opportunities to participate in and contribute to leading-edge productivity research with other economies in the GFP, expand networks, and engage formally with national productivity institutions of GFP members.

The GFP was created in 2016 to foster international cooperation among public institutions that promote productivity-enhancing policies. It gives government agencies a platform to exchange views, share data and knowledge, discuss best practices, and undertake productivity analysis. APO Directors of all members were invited to attend the 2022 GFP Annual Conference virtually, 7–8 July, which was jointly organized with the European Commission Directorate-General for Economic and Financial Affairs with the theme Challenges for Productivity Growth in the Post COVID-19 Era.

United Nations Industrial Development Organization (UNIDO)

The APO participated virtually in the 38th session of the Programme and Budget Committee of UNIDO on 21 and 22 June. Although no joint projects were held in 2022, the APO and UNIDO continued working-level communications on common issues such as developing and disseminating tools and methodologies for SMEs to adopt Industry 4.0 and measure its influence on SME productivity, which allowed them to share relevant knowledge and experience while strengthening mutual cooperation.

Special Account for Business Recovery and Resilience

The Special Account for Business Recovery and Resilience is an initiative by the APO to assist member economies in dealing with the COVID-19 pandemic. Started in 2020, the program was originally scheduled to be completed in December 2021 but was extended to 1 November 2022. Updates on all three projects supported under the special account as of 31 December 2022 are given below.

Strengthening the Digital Capability of NPOs

Under this initiative, a total of USD20,000 was allocated for each NPO to upgrade digital connectivity among members and their capacity to host APO digital projects. In 2022, 19 members utilized this fund.

Assistance to SMEs and Critical Sectors

This fund was created to provide financial support to SMEs and other critical sectors such as healthcare, tourism, food, and retail affected by the pandemic. The APO allocated USD90,000 for each member economy to support capacity building and the purchase of equipment. As of the end of 2022, 18 members had utilized the fund.

Enhanced In-country Services

This program complemented the Assistance to SMEs and Critical Sectors, allowing member governments to support existing programs related to productivity enhancement. Each APO member was entitled to USD40,000 under this initiative. Eighteen members benefitted from this program in 2022.

Appendix 3:
List of NPOs

BANGLADESH

National Productivity Organisation, Ministry of Industries

INDIA

National Productivity Council

CAMBODIA

National Productivity Centre of Cambodia, Ministry of Industry, Science, Technology and Innovation

INDONESIA

Directorate for Productivity Development, Ministry of Manpower of the Republic of Indonesia

ROC

China Productivity Center

I.R. IRAN

National Productivity Organization of Islamic Republic of Iran

FIJI

National Training and Productivity Centre, Fiji National University

JAPAN

Japan Productivity Center

HONG KONG

Hong Kong Productivity Council

ROK

Korea Productivity Center

LAO PDR

Department of Small and Medium Enterprise Promotion, Lao National Productivity Organization, Ministry of Industry and Commerce

SINGAPORE

Singapore Productivity Centre

MALAYSIA

Malaysia Productivity Corporation

SRI LANKA

National Productivity Secretariat, Ministry of Labour and Foreign Employment

MONGOLIA

Mongolian Productivity Organization

THAILAND

Thailand Productivity Institute

NEPAL

National Productivity and Economic Development Centre

TURKIYE

Ministry of Industry and Technology

PAKISTAN

National Productivity Organization (NPO Pakistan)

VIETNAM

Vietnam National Productivity Institute

PHILIPPINES

Development Academy of the Philippines

Appendix 4:
Abbreviations & Acronyms

ADBI	Asian Development Bank Institute
AI	Artificial intelligence
ASEAN	Association otf Southeast Asian Nations
BCN	Bilateral Cooperation between NPOs (of the APO)
BE	Business excellence
CB	Certification Body
CBD	Certification Body Development (of the APO)
COE	Center of Excellence (of the APO)
CPC	China Productivity Center
DAP	Development Academy of the Philippines
DMP	Demonstration company (of the APO)
ERP	Enterprise resource planning
F2F	Face-to-face
FSMS	Food safety management system
FTPI	Thailand Productivity Institute
FVC	Food value chain
GBM	Governing Body Meeting (of the APO)
GPA	Green Productivity
ICT	Information and communication technology
IOSM	International observational study mission (of the APO)
IoT	Internet of Things
IPR	Information and public relations
ISO	International Standards Organization
IT	Information technology
JTCA	Japan International Cooperation Agency
JPC	Japan Productivity Center
KPC	Korea Productivity Center
LNPO	Lao National Productivity Organization
MPC	Malaysia Productivity Corporation
MPO	Mongolian Productivity Organization
MSME	Micro, small, and medium enterprise
NPCC	National Productivity Centre of Cambodia
NPEDC	National Productivity and Economic Development Centre (of Nepal)
NPO	National productivity organization; National Productivity Organisation (Bangladesh); National Productivity Organization of I.R. Iran; National Productivity Organization (Pakistan)
NPS	National Productivity Secretariat (of Sri Lanka)
NTPC	National Training and Productivity Center, Fiji National University
OECD	Organisation for Economic Co-operation and Development
OSM	Observational study mission (of the APO)
P-Talk	Productivity Talk (of the APO)
SDGs	Sustainable Development Goals (of the UN)
SME	Small and medium enterprise
SNP	Specific National Program (of the APO)
SGPC	Singapore Productivity Centre
TES	Technical Expert Services (of the APO)
TUSSIDE	Turkish Management Sciences Institute
UNIDO	United Nations International Development Organization
VNPI	Vietnam National Productivity Institute
VSN	Vision 25 Outreach (of the APO)
WSM	Workshop Meeting of Heads on NPOs (of the APO)

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