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How diversity & inclusion can help maximize workforce potential **P**

57th WSM report P2 Digitization is an economic productivity booster P6 Training is for trainers too P8 AEPM: Doorway to 40 years of productivity data P12

Smart and digital is the way forward

For productivity to be a game-changer in the new economy, the 57th WSM identified digitization and innovation as key enabling tools for APO member countries



"As the leading mover of productivity in your respective countries, you have the unenviable task of raising productivity levels to enable your economies to be more competitive."

> **Dato' Seri Ong Ka Chuan** Second Minister of International Trade and Industry, Malaysia

he Fourth Industrial Revolution, even in its current early stages, is already beginning to alter the way we work, live, and interact with each other. In order to embrace the Fourth Industrial Revolution, productivity organizations have a crucial role in ensuring that all factors are optimally used to achieve productivity gains," highlighted Malaysia's Second Minister of International Trade and Industry Dato' Seri Ong Ka Chuan while addressing the Heads of National Productivity Organizations (NPOs) in Putrajaya during the 57th Workshop Meeting (WSM) of the APO.

The three-day workshop that kicked off 19 October began by paying heartfelt tribute to His Majesty King Bhumibol Adulyadej of Thailand, who passed away on 13 October 2016. The WSM also observed a two-minute silence as a mark of respect for the King and to express solidarity with the people of APO member Thailand. The WSM was attended by representatives of 18 APO member countries, along with agriculture delegates and advisers. Observers from the African-Asian Rural Development Association, Centre for Integrated Rural Development for Asia and the Pacific, OECD, Pan-African Productivity Association, and UN Economic and Social Commission for Asia and the Pacific also participated in the WSM to understand the needs of APO member countries and discuss areas of mutual collaboration.

Think out of the box, become a game-changer

Addressing the inaugural session of the WSM, the Second Minister pointed out that productivity was a crucial game-changer in the 21st century economy and called upon WSM delegates to review overall initiatives and create a better framework for improving productivity. "As the leading mover of productivity in your respective countries, you have the unenviable task of raising productivity levels to enable your economies to be more competitive. This gathering provides an opportune occasion for all of you to take stock of where we are in terms of our achievements," he said.

Minister Ong also emphasized that the APO should adopt a three-pronged approach to drive the productivity movement in member countries. "First, you need to think out of the box, be creative and innovative, and be constantly on the lookout for new ways of doing things. Second, you need to benchmark against the best productivity measures introduced by successful organizations. Third, there should be a mechanism for sharing of the best practices." Appreciating the APO's contribution to expanding opportunities for cooperation and greater socioeconomic development of member countries, APO Director for Malaysia Tan Sri Azman Hashim pointed to the country's recent achievements in implementing the Business Excellence Framework (BEF). "The Malaysia Productivity Corporation has successfully leveraged the APO Center of Excellence on Business Excellence in Singapore to promote the BEF among all organizations and to push for higher productivity in the country. Close to 4,000 companies have successfully adopted the BEF since 2013," he informed the WSM.

Meeting tasks

The WSM proceedings began with NPO Delegate for Lao PDR Somdy Inmyxai proposing NPO Delegate for Malaysia Mohd. Razali Hussain as Chair. The motion was seconded by NPO Delegate for Indonesia Estiarty Haryani. Next, NPO Delegate for Sri Lanka J.M. Thilaka Jayasundara proposed NPO Delegate for the Republic of Korea Wooyoung Chun as Vice Chair, which was seconded by NPO Delegate for IR Iran Dr. Roya Tabatabaei Yazdi. The delegates unanimously elected Hussain and Chun as Chair and Vice Chair of the 57th WSM, respectively.

Making his first official address after assuming the post in September 2016, APO Secretary-General Santhi Kanoktanaporn announced that the organization would be taking up a myriad of technology-enabled initiatives to push forward the goals of the Roadmap to Achieve Vision 2020 and help member economies become more competitive and productive in the new digital economy era. Underlining the present-day relevance of "ICT for Smart" for all member economies as a key means to achieve the Vision 2020 goals, the Secretary-General said that in a hyperconnected digital world, seamless flows of data and information could generate more economic value than the global goods trade. "Virtually every type of cross-border transaction has a digital component. This trend toward a digital world economy will only accelerate," he stated.

The Secretary-General thanked member economies for their outstanding financial support, including the cash grants provided by the Republic of China, Japan, and the Republic of Korea, which had enabled the APO to organize additional projects to complement its annual program. These included projects for the industry and service sectors on female workforce participation, labor-management relations, and energy efficiency and conservation, as well as projects for the agriculture and food sectors on agricultural innovations, food safety management, and cold-chain systems. In particular, the Japanese government had recently confirmed more than USD 1 million in cash grants for special projects.

While providing a snapshot of the APO's activities during 2016 and an overview of projects lined up for 2017–18, he invited NPOs to review the Roadmap to Achieve Vision 2020 based on the changing demands of their countries. This would help the APO Secretariat introduce more innovative ideas and high-quality, relevant projects to enable member economies to become more competitive and productive by 2020.

After consideration of all documents and reference papers submitted to the WSM 2016, the delegates unanimously adopted and endorsed the evaluation of 2015 projects and presentation on impact evaluation of 2014–15 projects, including suggestions made by member countries for submission to the 59th Session of the Governing Body to be held in IR Iran in April 2017. The Secretariat also presented the proceedings of the Strategic Planning Workshop for APO Liaison Officers (LOs) held in Tokyo, 19–21 July, which was attended by 12 LOs, six representatives of LOs, and three observers from member countries. It also presented the report on the APO Center of Excellence Program and the National Follow-up Program and gave an overview of the METI special cash grant that the APO had been informed of recently.

Recognizing the need to drive outcome-based project management, the Secretariat presented the program-based approach that it was pursuing under the APO Roadmap 2020. The presentation also highlighted that under the roadmap, the results-based management approach and results-oriented monitoring had been adopted. During the strategic planning sessions, delegates deliberated on country-specific needs and firmed up the program schedules for projects. NPO representatives presented country papers on their initiatives and out-lining challenges and specific requirements.

Visit the APO website at https://goo.gl/oKB2cc to access speeches at the WSM 2016.



United we stand: Representatives from 18 member countries, advisers, observers, and participants at the 57th WSM in Putrajaya, 19–21 October 2016.

Operationalization of diversity and inclusion management strategies

Appropriate D&I policies maximize workforce potential and organizational productivity.



p-Watch: A macro view of productivity trends

raditionally, diversity and inclusion (D&I) are defined primarily by gender and race perspectives. A single, internationally accepted definition of "diversity" has yet to be endorsed by the global corporate community. Depending on the region, the broad definition of D&I may imply specific issues unique to the organization or the country of operation, including sexual orientation, race, ethnicity, nationality, social and income class, physical ability, religion, age, and gender.

Taking D&I global is about embedding fundamental principles into the corporate value system by creating an environment that optimizes the full potential of each employee. The main objective is to encourage all employees to utilize their talents and skills for the benefits of their career development and the organization.

Corporate leadership plays a key role in installing a unique diversity management culture that fosters a respectful, inclusive, knowledge-based environment where each employee has the opportunity to learn, grow, and contribute to the organization's sustainability. The primary reason for workforce diversity is to strengthen the concept of equal opportunity in the workplace. Although every organization has a unique level of D&I maturity, the common challenge faced across all sectors is the establishment of D&I performance measurement and criteria.

Regional challenges

The different dynamics and definitions of D&I have raised questions of cultural competency and the importance of executives' ability to perform in a robust work environment in Asia. The regional challenges of implementing D&I in Asia include economic differences, rapid technological change, regional differences, a mobile workforce, and corporate culture versus national culture and communication patterns.

However, Malaysia has a different perspective on D&I. It formulated the Vision 2020 to drive the country toward the ambitious goal of transforming into a developed economy by 2020. In making this transformation a reality, D&I are important for a multicultural, multiracial country like Malaysia. In addition, the influx of foreign workers has been on an upward trend to cater to development needs, and it is anticipated that they will increase to about 20% of the total workforce. Luckily for Malaysia, a growing number of companies in the country have been embracing D&I in the workplace.

In 2014, Bursa Malaysia (formerly known as the Kuala Lumpur Stock Exchange) required all public-listed companies to disclose diversity policies covering gender, ethnicity, and age for the board of directors and workforce. Starting in January 2015, it made it mandatory to publish this in the annual reports of all public-listed companies.

In early 2016, the Diversity in the Workplace 2015 Survey

was conducted by TalentCorp-PricewaterhouseCoopers involving the largest 100 public-listed companies. The Life at Work Awards recognize Malaysian employers with excellent workplace strategies that enable employees to achieve success in their corporate and personal lives and demonstrate a company's commitment to championing D&I.

The winners include corporations like Maybank Group, IBM Malaysia, IHS Malaysia, Shell Malaysia, and KPMG Malaysia. These high-performing organizations are not only the employers of choice for talent but also have proven track records of good business performance. This is evidence of a correlation between D&I as fundamental corporate values and productivity and performance. More Malaysian employ-

ers are now championing progressive workplace strategies to attract and retain quality talent, in addition to ultimately helping the country achieve Vision 2020.

Success stories from Malaysia

Listed companies in the financial services and fast-moving consumer goods sectors in Malaysia achieved the government's target of 30% women in top management. The top 100 listed companies, including BIMB Holdings, Telekom Malaysia, Digi, Top Glove, Nestle Malaysia, and Petronas Dagangan Berhad, had more than 25% female rep-

resentation at the board level. To respond to the changing needs of today's workforce and retain talent better, Malaysia's regional financial services leader, Maybank, introduced flexible work arrangements (FWAs), providing options for staff to work on fixed flexible schedules, flexitime, and part-time as well as at flexible work locations. The organization also tracks diversity metrics in its succession pool, resulting in an increase in women serving in senior management positions from 11% in 2008 to 35% in 2014. The Women Mentor Women initiative was introduced which pairs female staff with mentors in senior management.

In KPMG Malaysia, D&I have always been an integral part of corporate DNA and implemented from the top down. Leaders play an important role in ensuring that the momentum is sustained. Two women were appointed as partners to head business units based on merit. The organization's human resources agenda promotes employee engagement and a healthy work–life balance. It also formalized FWAs and recently announced an unprecedented annual one-week office closure, which is paid time off for all employees to rejuvenate and spend quality time with their families and friends.

IBM Malaysia emphasizes the development of female talent in IT, technology, and finance, with women "ambassadors" appointed to drive these initiatives. The global IT firm also created the Business Resource Group and Women in

Research has shown that when diversity is embedded in organizational culture, both management and employees reap tangible and intangible benefits from the optimization and capitalization of workforce diversity.

IBM Network Group to inspire women to achieve their full career and leadership potential.

Shell Malaysia sets specific D&I targets for the technical and commercial skill pool and East Malaysian hires. The oil and gas giant also revised its Shell Graduate Program to be more female-centric by prioritizing women in its selection process and created a toolkit for D&I recruiting excellence.

Global benchmarks

The Deutsche Bank Diversity Program is firmly anchored in the corporate values and beliefs of the organization. This includes an open, unprejudiced corporate culture in which employees develop their potential and contribute their indi-

vidual talents.

PepsiCo has a core belief that making the most of diverse strengths and talents helps make the company more successful. D&I management is woven into the fabric of corporate culture to position the organization as a global, multicultural, multigenerational company capable of serving the world's communities effectively.

Vale has implemented D&I to promote an inclusive working environment and respect for differences, both of which are principles included in the corporate code of ethics and conduct and the human rights policy. D&I are

key success factors to achieve optimal productivity in Vale. Research has shown that when diversity is embedded in organizational culture, both management and employees reap tangible and intangible benefits from the optimization and capitalization of workforce diversity of the different skill levels, styles, and sensibilities of the workforce. However, the greatest challenge is maintaining the uniqueness of national culture while still addressing the shared goal of embedding D&I into day-to-day operations. Forward-thinking companies are taking a leadership role to maximize the benefits of a diverse workforce.

An effective D&I strategy results in motivated and engaged employees who can power creativity and innovation that can lead to a better understanding of the different needs of customers, better marketing strategies, and improved sales performance. It enhances the employer brand, attracting high-quality talent. It also leads to reduced reputational, legal, and financial risk. All of these combine to deliver a strong competitive business advantage. (2)



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Digitization is an economic productivity booster

Emerging economies reap demographic dividends, while advanced ones with aging populations gain staying power.

p-Tools: Productivity methodologies, tools, and techniques



hen it comes to boosting national economic productivity, policymakers often look at their demographics with hope. This is relevant to Asian economies, which are home to almost 60% of the world population. That hope is not without basis, because East Asia has successfully reaped demographic dividends since 1960. As populations, especially in Japan, have started to age, however, growth rates have slowed.

Meanwhile, opportunities for other Asian countries remain strong. According to a 2016 UN report, PR China (PRC) and India alone had one billion and 860 million working-age people, respectively, in 2015. Even though the PRC's workingage population is now falling, it will remain high in absolute terms. In coming decades, India's increasing working age-group will ensure that Asia maintains dominance in terms of workforce numbers. Could this potential demographic advantage be successfully converted into actual dividends?

A key challenge is that several populous Asian countries, including Bangladesh, India, and Pakistan, still have pyramidal socioeconomic structures, meaning that people are poor, illiterate, and largely unemployed. Consequently, those countries do not rank highly on the Human Development Index (HDI), a key indicator of life expectancy, education, and per capita income. Social engineering strategies could help alter those structures to some extent and raise HDI rankings. However, nonhomogenous population compositions mean that the results of those strategies might not be seen until the window of the demographic dividend has closed, making it highly unlikely that those countries could take full advantage of their demographic potentials.

Digitization as an HDI catalyst

Well-structured digitization programs could help the low-HDI Asian economies fast-track their social engineering programs and consequently optimize productivity gains by the future working-age population. The World Economic Forum (WEF) Global Information Technology Report 2016 stressed the need for policymakers to work with other stakeholders to adopt holistic, long-term strategies for development of information and communication technologies (ICT), while highlighting that innovation today is increasingly based on digital technologies and business models. The report is a continuation of a series published by the WEF measuring the global drivers of

the ICT revolution using the Networked Readiness Index (NRI) as a gauge.

Significantly, among countries that emerged as frontrunners in benefiting economically from investments in ICT and therefore had high NRI rankings, Singapore topped the list, followed by Finland, Sweden, Norway, and the USA. The Republic of China (ROC), Hong Kong, Japan, and the Republic of Korea (ROK), were Asian economies among

the top 20. The APO Productivity Databook 2016 showed that Singapore had a 10% higher score than the USA benchmark in terms of per-worker productivity. Hong Kong, the ROC, and Japan were other Asian economies with high per-worker productivity scores. The correlation between high NRI rankings and productivity levels in various countries should be explored, as a strong correlation between ICT investment and GDP growth has been confirmed in previous studies.

The 2013 Global Information Technology Report stated that an increase of 10% in a country's digitization score fueled a 0.75% growth in its GDP per capita. Citing other studies, the report also emphasized that digitization was "4.7 times more powerful than the 0.16% average impact of broadband deployment on per capita GDP." More importantly, the report dispelled the notion that digitization led to an increase in unemployment. It noted that a 10-point increase in digitization led to a 1.02% drop in the unemployment rate, which was also 4.6 times greater than the effect that the widespread adoption of broadband had on reducing unemployment. Reduced unemployment would obviously lead to increased productivity in the long run.

Digital dividends for high-HDI economies

While digitization could help economies achieve demographic dividends, what about the ones that have already passed that phase and are now dealing with aging populations? It is significant that economies with high HDI rankings such as the ROC, Hong Kong, Japan, and Singapore also have

A robust broadband infrastructure is a must for seamless delivery of digital infrastructure comprising cloud computing, big data, social media, and the IoT.

high scores on the NRI. Those countries are also currently benefiting from their previous investments in ICT. Even though they may not be able to reap demographic dividends again in coming decades, they are now enjoying what may be termed "digital dividends." The digital dividend is manifested in various forms, and economic productivity is one. Not surprisingly, the ROC, Hong Kong, Japan, and Singapore also have high per-worker productivity levels.

Special role of broadband

Even though broadband may be only a part of the larger ICT suite, it is a fundamental building block. Since being scaled for the masses, broadband technologies have helped spur national economic growth, in Asia and elsewhere. The advent of mobile broadband devices helped make growth more widespread and evenly distributed across populations. Ac-

> cess to broadband has empowered the smallest of companies and enterprising individuals, enabling them to be more productive than before. Mobile broadband has also emerged as a vehicle for delivery of other building blocks of the digital superstructure that is currently being deployed across Asia. Be it cloud, big data, social media, or the Internet of Things, the true potential of digital services can be realized only when a robust

and ubiquitous broadband infrastructure is in place.

Benchmarks for Asia

The rise of an Asian economy like Singapore to a level matching or exceeding global benchmark economies like the USA is a development that bodes well for others. While geographic proximity makes it relatively easy for stakeholders in the Asia-Pacific to view and comprehend such success stories, sociocultural similarities make it easier to relate to the enabling policies and their implementation. Moreover, regional economic groupings like ASEAN offer platforms for exchanges of ideas and best practices.

Other Asian countries with high NRI scores, like the ROC, Hong Kong, Japan, and the ROK, can serve as useful benchmarks for emerging economies in the region. While Singapore may be a useful benchmark for more advanced economies, the others could be useful for emerging economies. This makes sense, since countries in the Asia-Pacific are in different stages of ICT adoption and digital maturity compared with European counterparts exhibiting greater uniformity in terms of ICT and digital adoption.



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Training is for trainers too

Somchay Soulitham shares how the learning from an APO session is helping her impart better consulting services to SMEs in Lao PDR.

f Somchay Soulitham were the kind of person who thrived on simply taking root in her comfort zone, then she never would have applied to participate in an APO project. By her own admission, Enterprise & Development Consultants Company Limited (EDC), the private consulting company she works for in Lao PDR, was not facing any real challenges apart from a disorganized storage and filing system. But as EDC's founder, Managing Partner, and Human Resources Manager, Somchay could not have only her own interest at heart. People are at the core of her role, and their needs had to be met too, even if they had not yet identified those needs.

"EDC's job is providing organiza-

tional management training for SMEs, private companies, development projects, and government organizations," she explained. "I saw that APO projects would enrich my knowledge and skills in this area, which I could then transfer to my clients and help them improve too."

Stepping forward

Somchay was accepted as a participant in the APO projects on Training of Trainers in Total Quality Management (TQM) for SMEs held in Indonesia in 2014 and Industrial Engineering (IE) Techniques for Productivity Improvement in SMEs held in Fiji the following year. The APO designed the TQM project in response to challenges faced by SMEs from global competition and sophisticated customers. The project has been a great success among SMEs for approaching organizations as "systems" and using cost-effective, service-oriented initiatives to fulfill customer needs.

"The different TQM tools provided varied benefits which we are already witnessing in EDC," Somchay said. "The 5 Sigma (5S) tool, for example, has helped increase the efficiency of our administrative staff. The office is more organized, which means that staff spend less time preparing the materials they need for training courses. Prior to this, they would spend a whole day just putting the stationery together because certain supplies would have run out or gone missing, which meant having to purchase them. The 5S method has helped keep everything organized and accounted for.

Mastering and implementing the tools within EDC was only the first step. The next was to disseminate this knowledge to clients with the same efficiency. So Somchay teamed up with her colleague, Thone Boungvatthana, also a participant in APO projects, to design the Continuous Improvement for Business Excellence course. Another TQM tool that I have found helpful is the fishbone diagram. We've introduced it in training courses on continuous improvement."

The IE project, meanwhile, trained participants in using techniques to analyze and control work processes to boost productivity, reduce costs, and enhance efficiency. Somchay emphasized the importance of work measurement in IE, adding that it helped her be more conscious about working efficiently. "I have now mastered the plando-check-act cycle, a management method used for continuous improvement of processes and products. I was also glad to understand ergonomics better. After returning from the training,

I decided to invest in new office chairs!"

Teach a man to fish

But mastering and implementing the tools within EDC was only the first step. The next was disseminating this knowledge to her clients. Somchay teamed up with colleague Thone Boungvatthana, also an APO project participant, to design a course called Continuous Improvement for Business Excellence and launched it in March 2015. The course is based on tools from the APO projects the two attended. Divided into four sessions over four days, the course has been attended by 84 senior and middle managers and junior staff from four large mining and hydropower companies in Lao PDR.

Somchay reports that the course has been successful with encouraging results ranging from the application of tools to more organized workspaces and better internal processes. "We have conducted four courses to date and we also run follow-up workshops for participants to review and refresh their learning," Somchay said. "This is when we hear their success stories."

One client was struggling with a slow procurement process. The company brainstormed to list different causes of the problem, which were then structured into a 5W1H matrix. Next, employees discussed the possible solutions in consultation with EDC and identified adjustments needed. Another client was tackling the late payment of salaries. Managers analyzed the problem and set up new rules like specific dates



(From left to right) EDC Managing Partners, Consultants, and Trainers Thone Boungvatthana and Somchay Soulitham.

for submitting information for salary calculations. They later reported that the problem had been solved.

Leaning on a support network

It may be a rosy picture from the outside, but Somchay does not deny that there are challenges behind the scenes. Being in a small company that operates in a small market like Lao PDR, Somchay's plate is filled with responsibilities, from administrative support services and development programs to organizational development and strategic planning. "I often travel to provinces to conduct training programs," she pointed out. "This means that I have limited time to spend with my staff in the office. This was why it took two years to implement 5S properly in EDC. But it's getting better."

The bigger challenge, however, was that she and Thone had limited practical experience with the tools for TQM and IE. This is where the APO support network proved invaluable. Somchay stays in close contact with friends from the Republic of China, Fiji, Indonesia, IR Iran, the Philippines, and Thailand. When she shared the progress of her 5S project with them, they immediately jumped in to offer useful inputs based on their own experiences. "In future training courses, I plan to invite them to be resource persons via videoconferencing or Skype. This will enrich our training sessions and the clients will benefit from the opportunity to learn from international practices," Somchay commented.

Growing and thriving

Resource persons are the APO's unique point. Those people, Somchay said, are highly competent with years of experience.

She recalled how the resource person assigned to her in her first APO project had dispensed solid advice on using TQM tools and getting the necessary support from management for their adoption. "The other uniqueness of APO projects is the observational site visits, which add so much value as they allow us to learn from real-life practices," she stated.

Now, Somchay is focused on two main goals. The first is building upon the Continuous Improvement for Business Excellence course. "This year we opened a modified version of the course to the general public. Instead of holding it in four sessions over four days, we split it into two main sessions. The session was organized for three days in June. Participants were then given two months to apply their learning in their workplaces. The second session was in September, when we visited each participant's organization to assess the actual situation for ourselves. Then we came together to exchange experiences and learning." Somchay's second goal is making 5S a permanent part of EDC's work culture. To encourage continuous improvement and innovation, EDC management now offers cash incentives to employees whose ideas on making the workplace better are accepted and implemented.

Somchay's future initiatives are likely to gain firm support, thanks to the positive results of her training on the company as a whole. "I can confidently say that the APO training contributed to part of EDC's growth," she acknowledged. "We have been able to add more topics to our list of training services, which has increased sales by 4%. And we've been able to build staff capacity in the areas of 5S, kaizen, TQM, and IE. We can only move forward from here."

PM Hwang Kyo-anh presents productivity awards

ROK Prime Minister Hwang Kyo-anh delivering the address during the award ceremony. Photo: KPC

he 40th National Productivity Awards in the Republic of Korea (ROK) were presented by Prime Minister Hwang Kyo-anh in a program attended by over 800 people from government, public organizations, and the private sector in Seoul. Vice Minister for Ministry of Trade, Industry and Energy Dr. Jeong Marn-ki and Korea Productivity Center (KPC) Chairman of Dr. Soon Jik Hong also attended the ceremony.

The annual awards are organized by the KPC to recognize organizations and individuals for their contributions to the national economy by establishing systematic management systems and conducting pioneering activities to improve productivity. The 2016 awards were given to 19 individuals and 44 companies, including Hanwha Corporation, Kiduck Industry, Turbo Power Tech, KumHo Resort, and Korea South Power Corporation. Another key objective of the award is to enhance productivity and innovation through amicable labor-management cooperation. The awards share the best examples of raising awareness of productivity improvement and promote a national productivity mindset.

At the ceremony, Prime Minister Hwang called upon industries in the ROK to work toward catching up with global trends in Industry 4.0. He also urged them to merge manufacturing technology with ICT so that they could utilize and benefit from technological advances like artificial intelligence and the Internet of Things for driving economic growth in the ROK. 🧐

Smart grids and green energy for GP

he ROC worked intensively for two decades to develop smart grid infrastructure and green energy, along with supporting technologies, policy infrastructure, and business networks necessary for the transformation. In recognition of those efforts, in 2013 the China Productivity Center was designated as the APO Center of Excellence on Green Productivity (GP). To share the results achieved, the APO conducted a multicountry observational study mission on Promoting Green Productivity with Focus on Smart Grids and Green Energy, 5–9 September in Taipei, for 22 participants and three observers from 13 member countries.

Resource persons from the ROC, Japan, and the USA presented case studies from their countries and experiences in projects in France, Spain, and the UK. They covered the GP benefits as well as challenges in developing sustainable power systems. Traveling through half of Taiwan Island, the mission observed innovative applications of solar and wind power by the ROC's largest power generation and distribution company, Taiwan Power Company. They also saw the latest technologies on fuel cells, portable microgrids, and the ROC's largest rooftop photovoltaic systems from Chung Hsin Electric and Machinery and AU Optronics.

The observational study mission also focused on showcasing how these technologies could be integrated into

Participants getting a firsthand view of the photovoltaic modules and cloud-based energy management and monitoring systems at AU Optronics Corporation. Photo: Taiwan Environmental Management Association

daily life, and the participants were impressed by Tatung Company's community-based microgrids that provide self-sustaining power supplies to remote areas and Living 3.0's automated systems integrating green buildings, smart devices, recycling, and renewable energy systems.



Greening the food supply chain



Inaugural session of the APO Asian Food and Agribusiness Conference 26–28 October in Bali.

ighteen years ago, Wayan Balik Ardika was struggling to educate his children. Now he earns INR200 million (USD15,625) monthly from only 0.8 ha of land. "It took nine years to get his field back to high productivity," stated Damping Bali Organic Association (BOA) founder Ni Luh Kartini at the APO Asian Food and Agribusiness Conference, 26–28 October in Bali. In the BOA approach to "ecosystem farming,"1 kg of worms produces 1 kg of compost in 24 hours with farm waste without artificial inputs. She noted that while the BOA had early problems with marketing, the food chain Bali Buda agreed to purchase from the more than 100 organic farmers under BOA supervision. "BOA supervision is seen as an alternative to organic certification," she said.

Conference participants traveled to northern Bali to see ecosystem farming and meet organic farmer Ardika, whose field Kartini referred to. They explored the successful results of ecosystem farming in Ardika's greenhouses.

The conference was organized with Indonesia's Directorate of Productivity Development, its Foreign Cooperation Division, and the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP). More than 70 participants discussed challenges in meeting national food requirements amid agricultural resource depletion and environmental degradation. Experts shared best practices in building green food supply chains. Indonesia's Ministry of Village, Development of Disadvantaged and Transmigration Secretary General Anwar Sanusi was the chief guest on opening day. APO Alternate Director for Indonesia Kunjung Masehart, NPO Head Estiarty Haryani, and former CIRDAP Director General Dr. Cecep Effendi also attended.

APO conducts program in Colombia

preading its wings beyond the Asia-Pacific, the APO reached out to South America to organize a training course on the Development of Productivity Practitioners in Colombia. The two-week workshop was organized in the city of Medellín jointly with Colombia's Centre of Science and Technology of Antioquia (CTA). Twenty-five local productivity consultants attended, facilitated by APO resource persons from Malaysia and Singapore.

The course was based on similar ones held in Asia and Africa. Its modules were in a train-the-trainers format to enable participants to identify, use, and explain approaches and tools while diagnosing productivity issues and devising and implementing solutions under an integrated framework. The latest trends in the productivity movement in Asia were also shared.

Learning from the experience of APO member countries in enhancing productivity were among the key points highlighted by participants. Impressed with the successful integration of productivity techniques and philosophy guided by well-trained productivity experts from Asia, Senior Lecturer from the National University of Colombia Jose Ignacio Maya Guerra said that he would develop a new course on consulting based on the program.

CTA Director Santiago Echavarría Escobar congratulated those who successfully completed the course and hoped



In-plant productivity assessment practicum at Dyna Corporation in Medellín, Colombia. Photo: CTA

they would collaborate with the CTA in providing productivity consulting services in Medellín, especially to SMEs.

The course was organized under a memorandum of understanding (MOU) signed by the APO and CTA in December 2015. The APO and CTA will continue cooperation and exchanges to promote productivity and innovation under the general collaborative framework set out in the MOU with the support of the Mayor's Office of Medellín through its International Cooperation Agency. (2)

APO launches online productivity data resource tool

n an initiative aiming to accelerate the use of productivity data by stakeholders across the Asia-Pacific region, the APO recently announced the online debut of its Asian Economic Productivity Map (AEPM), an open-data initiative aimed at helping member economies navigate productivity trends in an increasingly digital economy.

The AEPM, a comprehensive online resource on 70 productivity and economic indicators, offers a user-friendly web interface with free access to productivity-related data from 1970 to 2014, covering 30 Asian economies and benchmarks from multiple economic groups across the world including ASEAN, South Asia, the Gulf Cooperation Council, EU 15, and USA.

Emphasizing the strategic role that this online initiative can play in an increasingly digitized economic landscape APO Secretary-General Santhi Kanoktanaporn said, "The need for a digital resource such as the AEPM has long been felt by productivity stakeholders across the region. The power of the AEPM lies in its simplicity and clarity of presentation, which make it a highly effective tool and reference point for governments and NPOs for their varied productivity benchmarking requirements."



The APO Productivity Database project is a joint research effort between the APO and Keio Economic Observatory, of Keio University, Tokyo, Japan. The 40-year timeline makes it highly relevant for a wide range of user groups including but not limited to government planners, policymakers, business analysts, economists, and academics.

Visit **www.apo-tokyo.org/wedo/measurement/aepm** to access the AEPM tool.



New publications

Updating productivity statistics

The APO Productivity Databook 2016 contains comprehensive datasets on economic growth, structural change, and productivity performance across 30 Asian economies and their groupings, along with other reference economies like the USA and EU. A key highlight of this edition is the inclusion of preliminary estimates on the per-worker labor productivity for 37 major cities across Asia. Total factor productivity estimates for Nepal and growth accounting for the Asian region are newly developed in this edition of the Databook. ISBN: 978-92-833-2472-0

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Benchmarking warehousing from four perspectives

SMEs in the warehousing subsector of logistics are core enablers of other sectors. Their environment is now being transformed by technology and customer expectations. Benchmarking research was conducted on key performance indicators of warehousing in five APO member economies from the financial, customer, operational, and human resources perspectives. This volume summarizes the research results, analyzes best practices identified, and makes recommendations for adoption by other SMEs operating warehouses.

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