# New Year message from APO Secretary-General Ryuichiro Yamazaki

A

s we usher in 2013, I would like to wish everyone a happy, healthy, and productive New Year.

Last November, the Secretariat relocated its office to Hongo, Tokyo, and started a new chapter with the same dedicated staff, vision and mission, strategic directions, and commitment to helping APO members achieve sustainable socioeconomic development.

The year 2012 witnessed new initiatives in APO projects. One of the highlights was the introduction of time-tested private-sector productivity and quality concepts, approaches, tools, and techniques into APO public-sector projects. The Public-sector Productivity Program Framework was also developed to guide APO members in streamlining their activities and adopting a



coordinated approach to promote innovation and productivity in this sector, as public-sector organizations are key to the economic development and competitiveness of a country. The APO also unveiled the Taipei Declaration embodying the recommendations of experts who participated in the International Conference on Productivity and Sustainable, Inclusive Development in the Asia-Pacific in Taipei. The recommendations focus on key areas to guide not only the APO but also other stakeholders to achieve sustainable, inclusive growth.

In a continuing spirit of partnership, the APO collaborated with the United Nations Centre for Regional Development, United Nations Framework Convention on Climate Change, and Asian Development Bank Institute, among others, in the past year, in areas such as the 3Rs, green public procurement, greenhouse gas emission reduction, and climate change mitigation measures. APO members thus benefited not only from the expertise of those organizations but also from wider international exposure and networks.

In agriculture, we continued focusing on food safety management due to the growing need of enterprises in the food industry to build their capacities and to support food security. With a grant from the Ministry of Agriculture, Forestry and Fisheries of Japan, seven food company demonstration projects were implemented in Lao PDR and Cambodia. To support the Government of Japan's rehabilitation efforts in the tsunami-struck Tohoku region, the APO implemented the Special Program for Restoration and Revitalization of Rural Agriculture and the Food Industry that included local participants. It increased awareness of the many advantages of controlled-environment agriculture and management systems for safe, reliable, high-quality food and agricultural products.

In 2013, APO members can look forward to the 8th Eco-products International Fair (EPIF) in Singapore, 14–16 March, organized with the support of the Green Productivity Advisory Committee. The 2013 EPIF will continue to showcase the most advanced environmentally friendly products, technologies, and services to enhance sustainable development and competitiveness. The APO will also launch a new center of excellence (COE) to continue promoting collaboration and exchange of knowledge and best practices on a specific focus area to drive productivity enhancement in the APO region. This follows the COE for Business Excellence (BE) hosted by SPRING Singapore, which has been instrumental in building up the BE capabilities of other NPOs. The COE remains a key APO program and an excellent approach to propagate critical productivity-enhancing capabilities of NPOs.

The APO must strive to exceed expectations continuously by increasing its outreach and membership and carrying out more meaningful, relevant projects. Therefore, I hope to continue forging partnerships to contribute to the sustainable economic development of the Asia-Pacific through productivity enhancement. Let us identify new pathways through innovative thinking and collaboration to achieve national and regional aspirations. Here's to a prosperous, productive 2013!

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#### **CONTENTS**

- 2...p-Watch
- 3...Lean production at work
- 4...p-Tools
- 5... Demonstration project in the sugar sector launched in IR Iran
- 6... Promoting agrotourism development in Asia
- Safety and quality for foodprocessing SMEs
- 7... Agricultural adaptations to climate change
- 7... Photo news
- 7... APO/NPO update
- 8...MPC hosts the ICQCC: from ideas to reality
- 8...7th Regional APO Grantees Forum: driving innovation

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Asian Productivity Organization (APO) Leaf Square Hongo Building, 2F 1-24-1 Hongo, Bunkyo-ku Tokyo 113-0033, Japan

Tel: 81-3-3830-0411 Fax 81-3-5840-5322 e-Mail: apo@apo-tokyo.org



### Innovation in agriculture: plant factories with artificial light

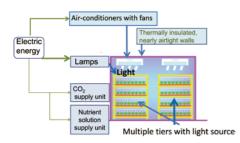
lant factories with artificial light (PFAL) are used in Japan for commercial production of leaf vegetables. Their annual productivity per unit area is roughly 100-fold that in open fields. PFAL can be built anywhere and in any building, because they use neither solar energy nor natural soil and productivity is not affected by climate or soil fertility. In the near future, PFAL will play an important role in local production and consumption of healthy, safe vegetables and other short-height crops in large cities. The current status of PFAL in Japan is introduced and the principles, characteristics, possibilities, and challenges are discussed below.

#### Concept of PFAL

A PFAL is a plant production facility consisting of six components: a thermally insulated, airtight warehouse-like opaque structure; four to 20 tiers (layers) equipped with hydroponic culture beds; lighting devices such as fluorescent and LED lamps; airconditioners with air fans; CO2 supply unit, nutrient solution supply unit with water pumps; and environment control unit (Figure). High-quality plants are produced without pesticides year round, regardless of weather, by controlling aerial and root-zone environments optimally. Vegetables produced in PFAL are so clean that washing is not needed before cooking or processing. The life span of the vegetables after harvest is more than two-fold longer than that of those produced in a greenhouse.

# Commercialization and cost performance of PFAL in Japan

As of March 2012, Japan had 106 PFALs for commercial production of leaf vegetables; that number will increase to over 150 by March 2013. The largest PFAL in Japan produces around 25,000 lettuce heads per day or nine million per year. In addition to PFAL for leaf



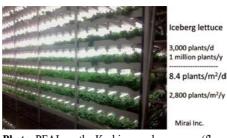
**Figure.** Main components of PFAL. Most components are mass produced at low cost and suitable for later reuse.



vegetables, facilities of 15–100 m<sup>2</sup> for commercial seedling production were in use at about 150 different locations in Japan as of October 2012. About 20% of PFAL are profitable, 60% break even, and 20% lose money. Depreciation accounts for roughly 30%, labor 25%, and electricity 20% of total production costs. Initial setup and operating costs are expected to decrease by around 50% within 10 years.

## PFAL at Chiba University operated by Mirai Co., Ltd.

A PFAL on the Kashiwa-no-ha campus of Chiba University has been operated commercially since July 2011 by Mirai Co., Ltd. Its total floor area and area for cultivation are 406 m<sup>2</sup> and 356 m<sup>2</sup>, respectively, with 10 tiers and nine rows (Photo.). This PFAL produced approximately 3,000 lettuces daily or one million heads annually as of November 2012.



**Photo.** PFAL on the Kashiwa-no-ha campus (floor area for cultivation: 356 m<sup>2</sup>, 10 tiers, 9 rows).

#### Research in progress

Research has been conducted to reduce the initial and operating costs by producing higher-quality, higher-yielding plants with fewer inputs (electricity, water,

fertilizer, labor, etc.) and less emission of environmental pollutants (waste water, garbage, CO<sub>2</sub>, etc.). Use of LEDs will soon improve the cost performance of PFAL considerably. Improving the lighting system is an important research subject for expanding PFAL commercialization. Extensive PFAL R&D is underway in the ROC, ROK, and PR China.

#### Plants suitable for PFAL production

Plants produced in PFAL need to be short because the distance between tiers is around 40 cm for maximum use of air space. For commercial production, plants should grow well at relatively low light intensity and high planting density, and most parts (leaves, stems, roots) should be edible or sell at a high price. These include transplants/seedlings of all kinds, leaf vegetables, herbs, root crops, medicinal plants, miniature ornamentals, and bedding plants. Staples like rice, wheat, and potatoes are not suitable for PFAL production.

## Relative annual productivity and sales volume of PFAL

The relative annual productivity of leaf vegetables per unit PFAL area with 10 tiers is roughly 90-fold (=  $10 \times 2 \times 2 \times 1.5 \times 1.5$ ) and its sales volume is over 100-fold (=  $90 \times 1.2$ ) compared with open fields (Table).

**Table.** Estimated relative annual productivity of PFAL per unit area versus open fields.

PFAL compared with open fields	Factor	Multiplication factor
10-fold using 10 tiers	10	10
2-fold by shortening the culture period from seeding/transplanting to harvesting by half	2	20
2-fold by extending the annual duration of cultivation to year-round production with virtually no time lost between harvest and next seeding/transplanting	2	40
1.5-fold by increased planting density	1.5	60
1.5-fold by lack of damage due to typhoons, heavy rain and drought, and pest infestations	1.5	90
1.2-fold by improved quality and less loss of fresh produce	1.2	108

# by Toyoki Kozai

#### Increased demand from the food service industry

Currently, most vegetables and herbs produced in PFAL are sold to the food service industry including home meal-replacement businesses. Costs for hygienic processing are significantly reduced for PFAL-produced vegetables, because no pesticides, dust, or insects are present. PFAL-produced spinach is now used to produce paste for baby food and food for the elderly and hospitalized. In future, PFAL will also produce Chinese chives, Chinese cabbage, and raw materials for pickles and frozen food. PFAL-produced herbs and medicinal plants can be used as food and drink additives, traditional medicines, supplements, cosmetics, etc.

#### Resource saving with PFAL

Essential resources for photosynthesis in PFAL are light energy, water, CO<sub>2</sub>, and inorganic fertilizer. However, electricity is needed to provide light and control the temperature and nutrient solution. These account for around 80%, 15%, and 5%, respectively, of total electricity consumption in the cultivation room. PFAL are well insulated, airtight, and cooled with air-conditioners even in the coldest season because significant amounts of heat are generated by lamps. At night, 30–40% of the lamps remain on to reduce daytime costs for lighting and cooling. About 95% of water vapor evaporated from leaves is collected as condensation on cooling panels of air-conditioners. The condensation is recycled to nutrient solution tanks; the nutrient solution in culture beds and tanks is also recirculated, resulting in minimal water and inorganic fertilizer losses.

PFAL must be airtight because the CO<sub>2</sub> concentration is kept at 1,200-2,000 ppm

(three to five times higher than that of outside air) to promote photosynthesis and growth, prevent insects and dust from entering, and minimize the effects of weather. By keeping PFAL airtight, CO<sub>2</sub> supplied for photosynthesis is efficiently absorbed by plants. Energy use efficiency of plants in PFAL is several times higher than in greenhouses and is expected to improve further.

#### **Challenges in PFAL**

Future challenges in PFAL include: 1) life cycle assessment; 2) applications in hotels, restaurants, hospitals, schools, community centers, etc.; 3) lighting system and light quality improvement; 4) automation and development of integrated environment control and total management systems; 5) integration with other bioproduction and resource recycling systems; 6) production of medicinal and other functional plants; 7) third-party safety and security evaluations; 8) streamlining outdoor agriculture/protected horticulture, natural energy, and IT; and 9) universal/barrier-free design of PFAL.

Professor Emeritus Toyoki Kozai obtained a PhD in Agricultural Engineering from the University of Tokyo in 1972. He then worked on greenhouse light environments, energy saving, heat pump applications, ventilation, and computer control. His scientific interest subsequently extended to in vitro environments and their control. After serving as president of Chiba University, 2005–2008, Prof. Kozai returned to research at the Center for Environment, Health and Field Sciences, Chiba University, focusing on medicinal plant production. Since 2010, he has been chief-director of the nonprofit Japan Plant Factory Association.

# Lean production at work

n Sunday, 4 November 2012, 18 participants from 14 APO member countries and two observers from the Zambian Ministry of Labor and Social Security flew into the clear autumn skies of Tokyo to ready themselves for a two-week training course on Lean Production Systems. From 5 to 16 November, they were involved in learning systematic ways to eliminate all types of waste in production and related processes. The lean production system was originated by Toyota Motor and became widespread with the company's business success. This face-to-face training course was organized as a follow-up to e-learning courses on the topic in July and August 2012, which were taken by 264 participants from 12 APO member countries.

The training course began with a briefing on the philosophy and concept of lean, followed by explanations of practical tools such as 5S, just in time, supply chain management, and value stream mapping. Later, participants visited the Oppama plant of Nissan Motor Co., Ltd. to learn about production synchronization management between assembly lines and the parts supply system. The Yokohama plant of Toyo Seikan Kaisha, Ltd., a producer of beverage containers, allowed them to observe its eco-friendly production. The Toyota Commemorative Museum of Industry and Technology in Nagoya demonstrated the *monozukuri* (the art of making things) concept and Toyota corporate history. Participants were also hosted by the Takatana plant of Denso Corporation where they examined its practical lean production system.

During the final field visit to the Higashiura plant of auto parts producer Sankyo Kogyo Co., Ltd., the participants were guided by experts over two and a half days in applying their knowledge to analyze current processes and operations. They then presented a kaizen



A Sankyo Kogyo Co., Ltd. representative demonstrating its kanban operations to control auto parts.

proposal to the company president and management, who acknowledged it gratefully.

"I have learned real practices of lean production systems and other factors I had not thought of before," said Sok Hout, general manager of a meat-processing SME in Cambodia. Zohreh Khooban, an Iranian production and material planning manager in a steel-casting plant, was impressed by lean applications in Japan and commented, "I am going to present what I have learned to my colleagues and participants in the e-learning course. I also will implement lean-cum-Toyota production system-related tools in my plant."



### Talent management know-how for SMEs

he highest form of philanthropy is job creation. By creating employment, an entrepreneur gives the means for communities to develop as well as allow people to feed and educate their families. SMEs are at the forefront of this form of philanthropy, accounting for 90% of all global businesses, 90% of all employment, and 65% of global GDP (SMB Group, 2011). Sadly, the role of SMEs in society and the impact that they can have are often overlooked. This explains how SMEs can use talent management as a way of creating business value and competing on the world stage alongside multinational corporations (MNCs).

For much of the 20th century, the focus of governments was on producing or attracting MNCs as they were seen as the best way to increase economic development. The rationale behind this was that for economic activity to flourish, four elements must be combined: capital, inputs (land, raw materials, etc.), entrepreneurship, and labor. As the world of work has evolved (Figure), the importance and scale of each of these elements have changed. In the manufacturing era, capital and raw materials were of primary importance and size mattered. Hence governments tended to focus on MNCs as engines of growth. As work moved into the knowledge economy era, labor became important but size mattered less. SMEs could compete with larger companies as long as they were able to attract and retain the best and brightest employees.

The "War for Talent" became the new battleground between MNCs and SMEs, but unlike previous battles where larger companies could easily win

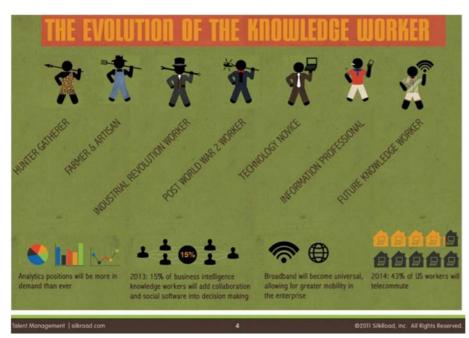
by controlling resource inputs or deploying capital, the war for the knowledge worker is a more even contest. Scale is less important than before. Some of the world's largest knowledge economy companies such as Google and Apple have workforces similar in size to a single factory in the manufacturing era. Technology allowed companies to specialize and acquire expertise that was dependent upon talent and entrepreneurship rather than access to capital or inputs.

The specialization of the enterprise, and the leveraging of technology, allowed a more peoplecentric approach to running a business. Talent management, or the attraction and retention of the best and brightest minds, became the way in which a company could differentiate itself in the market. Top talent want to work with top talent, and therefore if an SME could make itself the employer of choice then it would have the pick of the best employees in the industry.

Talent management is the name given to the set of activities that both SMEs and MNCs can undertake to drive the discretionary efforts of employees. These are outside the hygiene factors within an employee/employer relationship such as getting paid, having the tools to do the job, and managing attendance. Talent management can be broadly split into two elements: talent acquisition and talent development. Talent acquisition involves identifying, recruiting, and onboarding employees from either inside or outside the company, while talent development involves managing a performance framework that allows for the setting of goals and objectives for each employee. The

way in which the employee delivers these goals and the recognition of their accomplishments allow for the identification of natural leaders for succession planning and mentoring. Finally, employees are given access to required learning to allow them to achieve their current goals as well as develop skills to meet future goals of the business. All of these activities form a life cycle for the employee.

If an organization provides this type of talent management environment, it will generate an employment brand that differentiates it as an employer of choice. To be able to make itself an employer of choice, an SME must develop a high-performance culture that promotes autonomy, mastery, and meaning within this talent management framework. In any industry the three talent management principles for SMEs remain consistent. They need to provide an environment that delivers the opportunity for employees to attain the following in their work: 1) autonomy, 2) mastery, and 3) meaning.



**Figure.** Evolution of workers. *Source*: blog.socialcast.com.

#### Autonomy

Talented individuals have the ability to manage themselves. They typically do not respond well to a command-and-control environment but rather seek a goal-focused environment where they are free to decide the "how" of the work. To be able to give talent autonomy in their role, SMEs must understand the people working for them and their skill sets and competencies that can be utilized to generate revenue. They then have to put in place the processes so that they can apply these skills and competencies in a systematic way while learning new ones without creating extra administration work or inflexibility within that process. Finally, they need to pick a technology platform that can support or automate the processes that allow for employee self-service and talent development but does not require an IT department to support.

#### Mastery

SMEs must do more than just providing learning opportunities to their staff. They have to give them the environment in which they can deploy those skills and refine them. A key element in this is letting employees have the ability to fail as long as they do so in a way that does not put the business at risk. This is crucial in the refining of skills and turning employees from being simply competent to masters at what they do.

#### Meaning (over money)

SMEs can rarely compete on compensation alone. They must attract talent in other ways. Luckily, talented individuals are rarely motivated by money alone. This is exemplified by the legendary pitch by Steve Jobs to John

Scully to get him to leave PepsiCo and join a struggling business one-tenth of the size. He challenged the meaning behind John's choice of occupation: "Do you want to sell sugared water for the rest of your life? Or do you want to come with me and change the world?" The name of that business was Apple, and it was an SME.

SMEs should be proud of the work that they do and take advantage of the opportunity that the new world of work is giving them to attract and retain the best talent to make their endeavors successful. Embracing a talent management strategy as a means to develop their business is no longer a "nice to have," it is now a "must have" to compete in the new world economy.



Peter Earnshaw is the Managing Director of the APJ Timezone for SilkRoad technology, a leading cloud computing software provider. He has been involved with talent management software systems for the past decade, working with SMEs as

well as Fortune 500 companies. In his career, he has helped over 250 companies in the APJ Timezone to implement talent management programs and software. Earnshaw also contributed as an expert to the APO study meeting on Talent Management in Bangkok without accepting the honorarium and is graciously donating the honorarium for this article to the Japanese Tsunami Fund.

# Demonstration project in the sugar sector launched in IR Iran

he mission of an APO productivity demonstration company is to convey success stories on the development and implementation of improvement initiatives undertaken. A demonstration company should epitomize an enterprise-wide productivity movement that achieves business expansion, increases profits and customer satisfaction, reduces waste, enables energy saving, and leads to fair, equitable, mutually satisfying productivity gain-sharing for both management and workers.

The National Iranian Productivity Organization (NIPO), in association with the Industrial Development and Renovation Organization (IDRO) and Food Product and Sugar Industries Yasuj submitted a proposal for a demonstration project on Green Productivity and productivity and quality improvement in the food-processing and sugar industry to modernize the plant. This sector has strategic importance with a significant impact on the food, beverage, and pharmaceutical industries. Since over 40 plants operate in the sector, significant multiplier effects are expected and NIPO's project proposal was accepted. The outcomes will be shared with other member countries, and a case study will be developed based on this demonstration project for utilization during training by NPOs and the APO in related projects.

The demonstration project was launched with a kick-off seminar organized in Tehran on 1 December 2012. The seminar was attended by about 70 senior government and private-sector officials, in which German sugar beet expert Dr. Gustav Witte made a presentation highlighting major areas requiring improvement for produc-

tivity enhancement in the sugar sector. Other speakers were Deputy of Promotion, Production and Renovation Mohammadali Vafaei and Managing Director Behzad Etemadi from IDRO, Dr. Mahmood Ghanizadeh from NIPO, Chairman Alireza Ashraf of the Ira-



Dr. Gustav Witte delivering a presentation on the beet sugar industry.

nian Sugar Syndicate, Managing Director Soleyman Afshin from Sugar Industries Yasuj, and APO Secretariat Senior Program Officer K.D. Bhardwaj. Subsequently, a group comprising NIPO, IDRO, and APO representatives along with Dr. Witte visited Sugar Industries Yasuj to make detailed assessments of process and project requirements. A broad action plan for the project was then developed. The Government of IR Iran has high expectations for this project as it plans to nearly double sugar beet production by 2017. The outcome of this project will be replicated in other sugar plants and there is a high level of commitment from the government. At the end of the project, scheduled to continue for one year, a practical manual for dissemination of the experience will be prepared by NIPO; and a video/DVD of the demonstration company's improved practices will be prepared.

# Promoting agrotourism development in Asia

grotourism has tremendous potential for increasing farm incomes and the development of related small and micro enterprises in rural areas, concluded the 19 participants in the training course on Development, Promotion, and Marketing of Agrotourism Products, 10–16 December 2012 in Kota Kinabalu, Malaysia. The course was organized by the APO and Colombo Plan Secretariat in cooperation with the Malaysia Productivity Corporation (MPC) and implemented by the MPC Regional Office in Sabah, Ministry of Agriculture, and Tourism Board of the State Government of Sabah. It aimed to enhance knowledge of the concept, models, and techniques for developing, managing, and marketing agrotourism products and community-based, tourism-oriented enterprises in member countries to increase productivity and optimize the use of local resources. In addition to the participants from 12 countries, four international resource persons from Japan, the ROC, Thailand, and the Netherlands attended.

Various case studies showed that agrotourism has become part of the mainstream tourism industry in many advanced countries. It not only benefits farmers and rural communities economically but also creates environmental and cultural awareness and shows the importance of agrobiological diversity. "Development of small farms for agrotourism has proven to be viable in several Latin American countries and in Tanzania in Africa, and Asian countries can do it also, although not all rural areas and farms can be suitable for tourism," according to Harro Boekhold, Managing Director of CONTOUR Projects Ltd. in Amsterdam. In many countries in Asia, the potential of agrotourism is still to be realized. "The concept of agrotourism is fairly new to many stakeholders, especially small farmers, and more information dissemination and training need to be undertaken to create that awareness and develop



Participants experiencing "fish foot massage" in Kampung Luanti, Ranau district. The fish are trained by villagers to administer healing massage to humans.

the entrepreneurial sense of farmers," pointed out Deputy Director Zefrinus Wong, of the Department of Fisheries Sabah, a course participant. He also saw the need to train extension personnel supporting farming communities to participate in community-based resource management for conservation and tourism development.

Participants visited the Mari Mari Cultural Village in Kiamson, Kota Kinabalu, which showcased the rich cultural heritage of various ethnic groups in Sabah state; Sabah Tea Agrotourism in Ranau district which demonstrated tea farming and processing-based agrotourism; and Tagal Moroli Ecotourism in Ranau district to observe best practices in the conservation and management of river resources for tourism.

# Safety and quality for food-processing SMEs

he APO multicountry observational study mission (OSM) on Best Practices and Systems for Food Safety and Quality Applicable to Food-processing SMEs was held in Japan, 12–17 November 2012, with 18 participants from 15 member countries. Food-processing SMEs generally have difficulty in establishing modern food safety management systems (FSMS) due to a lack of sufficient financial and human resources. This OSM aimed at seeking solutions for this by analyzing the essence of FSMS and observing the practices of SMEs in Shizuoka prefecture which successfully obtained certification in spite of their scales.

Besides the national HACCP system, Japan has regional HACCP systems to help local food-processing SMEs increase their safety levels. The OSM focused on the "Shizuoka mini-HACCP" model, which was developed in Shizuoka prefecture. The three prominent resource persons, Dr. Yataro Kokubo, Consultant Mitsuo Kato, and Dr. Emiko Araki of the Department of Fisheries, Tokai University, emphasized that the key element for successful HACCP implementation is establishment of the basic hygiene system called the Prerequisite Program (PRP), reiterating that, "Functional and operational HACCP cannot be established without a robust PRP."

Mission members visited six food manufacturing companies in Shizuoka, of which three had Shizuoka mini-HACCP certificates: Ichimaru Co., Ltd., a maker of precooked food; Tamaruya Co., Ltd., a processer of traditional

wasabi (Japanese horse-radish) products; and Yamaei Co., Ltd., a green tea producer. The participants also visited Marukei Co., Ltd., which manufactures *katsuo-bushi* (dried bonito), a traditional basic seasoning ingredient in Japanese cuisine and is ISO 22000 certified; Hagoromo Foods Co., Ltd.,



Quality manager of Yamaei Co., Ltd., demonstrating how to ensure the safety and quality of green tea during the production process.

a leading tuna canner; and probiotic drink producer Yakult Co., Ltd. where they observed advanced, large-scale production facilities. Expert lectures and company visits illustrated the importance of employee education, PRP, and 5S as the foundations for sustainable HACCP operation. It was pointed out that HACCP does not necessarily require huge investments for physical facilities but can be operated by well-trained human resources. With all these conditions fulfilled, SMEs can establish HACCP and even more advanced systems. APO Secretary-General Ryuichiro Yamazaki joined the OSM for an afternoon and the following morning, when he paid a courtesy call on Shizuoka Mayor Nobuhiro Tanabe.

# Agricultural adaptations to climate change

The scientific literature suggests that climate change is inevitable, posing serious challenges to socioeconomic development worldwide. The Asia-Pacific region is more vulnerable to climate change risks than other regions because of its greater dependence on natural resources, densely populated yet ecologically fragile areas, and low adaptive capacity. Agriculture is extremely vulnerable to climate change associated with weather extremes such as rising temperatures; increased frequency of droughts, floods, and severe storms; shorter, less predictable rainy seasons; and shifting cropping seasons. Some crops in certain regions of the world will benefit, but the overall impacts of climate change on agriculture are expected to be negative. Forecasts for Asian countries predict a decline in crop yields, increase in livestock losses, damage to fishery and forestry resources, loss of biodiversity, more desertification and land degradation, and greater need for irrigation water. These will contribute to volatility in market prices and undermine food security in many developing countries. Assessment of climate change effects on agriculture may help to adapt agricultural technologies, farming systems, and policy and institutional settings to increase the resilience of agrifood production systems during climate change. Thus, adaptation to climate change will become a key strategy for sustaining socioeconomic growth.

To review the policies and programs on climate change in the Asia-Pacific region, share successful examples of agricultural adaptations to ongoing changes, and formulate strategic action plans and road maps for promoting good practices of agricultural adaptation, the APO organized a workshop on Agricultural Adaptations to Climate Change in collaboration with the Asian Development Bank Institute (ADBI) and Thailand Productivity Institute in Bangkok, 19–23 November 2012. A total of 29 participants from 16 common APO/ADBI member economies and two APO nonmembers, Myanmar and PR China, attended. There were nine resource persons from the International Water Management Institute, Austria, Republic of China, India, Japan, Sri Lanka, Thailand, the USA, and Vietnam. The first day was a public seminar attended by dozens of additional local stakeholders.

In addition to themed presentations by resource persons, country case studies by participants, panel discussions, and group exercises, workshop attendees visited the experimental area, greenhouses, and research laboratories of the Pathumthani Rice Research Center. Four working groups of participants facilitated by resource persons conducted discussions on the four themes of institutional capacity building, innovative financing, intersectoral coordination, and international/regional cooperation. Each group identified issues and challenges in capacity building of stakeholders for adaptation to climate change, as well as strategies to overcome them.

### Photo news



Courtesy visit by OSM members and APO Secretary-General Ryuichiro Yamazaki to Shizuoka City Hall was warmly welcomed by Shizuoka Mayor Nobuhiro Tanabe and his staff, 14 November 2012.



Participants in the multicountry observational study mission on Best Practices and Systems for Food Safety and Quality Applicable to Food-processing SMEs against the backdrop of magnificent Mt. Fuji and Suruga Bay, Japan, 12–17 November 2012.



Expert Panel Meeting on the APO Centers of Excellence Project, 3–4 December 2012. Secretary-General Yamazaki stands in the center.

### **APO/NPO Update**

#### APO Secretariat

#### New address and phone/fax numbers

Leaf Square Hongo Building, 2F 1-24-1 Hongo, Bunkyo-ku Tokyo 113-0033, Japan Phone (main): (81-3) 3830-0411 Fax (main): (81-3) 5840-5322

#### Nepal

#### **New APO Director**

Name: Mr. Krishna Gyawali

Designation: Secretary, Ministry of Industry, Government of Nepal

Effective date: 31 October 2012



### MPC hosts the ICQCC: from ideas to reality

he Malaysia Productivity Corporation (MPC) successfully organized the International Convention on Quality Control Circles (ICQCC) in conjunction with the Annual Productivity & Innovation Conference and Exposition (APIC 2012) with the theme From Ideas to Reality, 15–17 October 2012, at the Kuala Lumpur Convention Centre. The APIC 2012 combined four of the MPC's major programs: National Innovative and Creative Circle Convention; National Quality Environment (5S) Convention; Productivity Conference; and CEO Masterclass. The exposition also showcased product and process breakthroughs by practitioners, academic researchers, and industry players featuring creative ideas in areas of productivity, innovation, and competitiveness. A total of 12 countries with 221 circles participated and made presentations at the ICQCC 2012, representing Bangladesh, the ROC, Japan, Hong Kong, India, Indonesia, the ROK, the Philippines, Singapore, Sri Lanka, and Thailand,

in addition to the host country.



Deputy Prime Minister Muhyiddin Mohd. Yassin delivering opening remarks. Photo courtesy of MPC.

The ICQCC is an annual event hosted by different countries to share the experiences and recognize outstanding QCCs from all corners of Asia. The convention provides a platform to disseminate knowledge on QCCs and how they can affect a company's ability to enhance its service systems. The ICQCC 2012 in Kuala Lumpur was the second time it had been hosted by Malaysia over a period of 16 years.

The opening of the ICQCC 2012 was presided over by Deputy Prime Minister Muhyiddin Mohd. Yassin. In his opening remarks, the Deputy Prime Minister pointed out that, "QCCs can be a powerful tool for driving new ideas, identifying new sources of growth, and pushing companies, organizations, and ultimately countries forward in their economic growth and transformation.



Malaysian Deputy Prime Minister Muhyiddin Mohd. Yassin placing a plaque on the 1Malaysia logo to mark the opening of the APIC 2012, flanked by Deputy Minister of MITI-Dato' Mukriz Tun Mahathir, MPC Chairman Azman Hashim, MPC Director General-Dato' Mohd. Razali Hussain, and JUSE Executive Director and CEO Ichiro Kotsuka.

They encourage a positive work ethic by embracing global best practices and innovation."

The main objective of the ICQCC, which was to encourage QCC activities throughout the country through creative projects that can enhance the effectiveness of the service delivery system in organizations, was met. The attendees shared knowledge and experience in implementing innovative projects and creating value from QCC projects and discussed benchmarking activities in terms of comparative levels of achievement and organizational impact among participating countries. *Contributed by MPC.* 



## 7th Regional APO Grantees Forum: driving innovation

he Development Academy of the Philippines (DAP) organized the 7th Regional APO Grantees Forum in Quezon City, 19 October 2012, with the theme Driving Innovation toward Transformational Change and Competitiveness. Forty-six productivity and quality practitioners/advocates attended to discuss innovation in its many forms. Four APO grantee-resource speakers spoke on innovation through value addition to agricultural products, process improvement-Six Sigma, design in the packaging industry, and science and technology education. In his welcome remarks, DAP Vice-President for International Relations, Innovation and Strategic Partnership and APO Liaison Officer Carlos A. Sayco, Jr. pointed out that the theme was in line with the APO's strategy on innovation promotion and that many innovative ideas too often remained ideas, without being transformed into value added for enterprises. "Real innovation is useful to people, communities, governments, and even worldwide consumers. The challenge for all of us is how to transform the lives of others through innovation," Sayco said.

President of Leonie Agri Corporation (LAC Farms) Guillermo Saret, Jr. contended that the secret to LAC Farms' success was social innovation by teaching farmers to become microentrepreneurs on productive organic farms. Senior Consultant of Performex Asia Inc. Ariel Driz used his Master Black Belt/Instructor experience to illustrate that Six Sigma can be a value management approach to innovate processes. Since most processes in the service industry involve less than 10% value added, lean techniques could benefit nearly all service businesses. Best practices in innovative packaging were detailed by Packaging

Research and Development Specialist Virginia Robledo of the Design Innovation and Solution Center-Innovations Group, San Miguel Yamamura Packaging Corporation (SMYPC). SMYPC has its own internal and external innovation frameworks, which include the important elements of attitude and planning.



Participants in the 7th Regional APO Grantees Forum, 19 October 2012 in Quezon City. Photo courtesy of DAP.

"Innovation should start with the youth, because they are the best instrument to help achieve our country's growth," stated Felta Multi-Media Inc. President and CEO Mylene Abiva, who does not believe that IQ alone is the key. Instead, educators should focus on creativity and problem-solving skills. Abiva, also the Program Director of Philippine Robotics Olympiad, had seen how innovative robotics "inspire students to be life changers who contribute to socioeconomic progress through innovative ways to accomplish tasks more productively." Contributed by Michael del Mundo, International Relations Officer, APO Liaison/International Relations Office, DAP.