Gardeners’ gain: Lal Teer Seed Ltd. will begin promoting messages about nutrition to customers as part of a new initiative to spread the word about vegetables and health in Bangladesh.

School gardens set to thrive in South Asia

(left): Covered production systems for tomatoes at the International Center for Integrated Mountain Development (ICIMOD) demonstration site outside of Kathmandu, Nepal.

(right): Warwick Easdown and students in school garden at Bitekha Middle Secondary School, Haa valley, western Bhutan.

AVRDC Director General Dyno Keatinge and South Asia Regional Director Warwick Easdown recently trekked the hills and valleys of Nepal and Bhutan—two countries slated to participate in the upcoming Vegetables Go to School project—to discuss potential activities with government officials, NGO representatives, teachers and students.

(…continued on page 2)
The Vegetables Go to School project has provided the impetus for AVRDC to reconnect with partners in Nepal, establish connections in Bhutan, and to broaden relationships beyond agriculture. The eight-year project funded by the Swiss government will improve the nutrition of school children, their parents and their communities by promoting school vegetable gardens.

During their visit to Nepal from 12-15 May 2013, AVRDC Director General Dyno Keatinge and South Asia Regional Director Warwick Easdown met with current and potential project partners in Nepal to explore new areas for collaboration.

While AVRDC has sent germplasm to the Nepal Agricultural Research Council (NARC) for many years, the Center has had no joint projects in Nepal for over a decade. Dyno presented a seminar on AVRDC’s work to NARC staff, and senior management was very supportive of the Vegetables Go to School project.

The project team led by Krishna Paudyal, Head of the NARC Horticulture Division, has developed new strong relationships with the Department of Health and Department of Education as a result of the project’s initiation.

Nepal has 34,600 schools and the Department of Education understands that improving nutrition is vital to improve learning. School attendance is strongly correlated with better dietary habits, and the project will help provide better food in schools. The project also fits in well with the Nepal government’s new integrated nutrition program.

Nongovernmental organizations may also play an important role in the project. Dyno and Warwick met with senior management of the Center for Environmental and Agricultural Policy Research, Extension and Development (CEAPRED), which has extensive experience in home gardening. Swiss funding also has helped CEAPRED develop a national network of smallholder vegetable seed producers.

The visit provided an opportunity to build connections with the International Center for Integrated Mountain Development (ICIMOD), headquartered in Nepal. ICIMOD and AVRDC are among the nine founding members of the Association of International Research and Development Centers for Agriculture (AIRCA). Dyno and Warwick met with Director General David Molden to discuss potential joint projects. At Godavari, the visitors toured ICIMOD’s forested demonstration site of technologies to empower mountain communities, including covered production systems for tomatoes, and a range of exotic and indigenous vegetables.
Bhutan: Making a good garden program even better

Two years ago the Wolathang primary school in Punakha province in western Bhutan was only accessible with a two-day mountain trek through pine and rhododendron forests. Today a rough dirt road connects it to the outside world, but students still have to walk an average of three hours to school each day over high mountains from their families’ tiny farms in the forest. Many students are malnourished and unable to bring adequate food for their school lunches, so the community donated rice and began a school vegetable garden. Wolathang is typical of many primary schools in Bhutan, and one that will be targeted by the new Vegetables Go to School project.

Dyno Keatinge and Warwick Easdown visited Bhutan from 16-19 May 2013 to meet with senior government officials in agriculture, health and education, visit school garden programs, and speak with teachers and students.

Bhutan is a mountainous Himalayan kingdom bordering India, China and Nepal. With a population of only 750,000 and more than 50% forest cover, it has strong policies in place to protect its unique Tibetan-Buddhist culture and pristine environment, but faces many challenges in developing agriculture.

School gardening, however, has long been part of activities for Bhutan’s students. Beginning in the 1980s, the country’s school garden initiative now covers more than 40% of schools and is a model of inter-ministry collaboration. An enthusiastic team led by BB Rai from the Ministry of Agriculture and Forestry with support from Dasang Dorji from the Ministry of Education actively promotes school gardens through visits, training courses, reference materials and financial support.

Bhutan is 60% self-sufficient in vegetables and training children is one part of a multi-pronged response to improve agriculture. Extreme topography and distances to markets, reliance on isolated smallholder producers, and the high costs of labor mean that imports from India are often cheaper than local produce.

AVRDC tomato, chili and mungbean are already being used in Bhutan. A local seed industry is expanding and developing a range of new crops suited to mountainous areas.

Vegetables Go to School aims to enhance Bhutan’s existing school garden program and to learn from its successes. AVRDC also hopes the project will be an entry point for expanding its cooperation with Bhutan across a range of vegetable production issues.
AVRDC East and Southeast Asia hosted the 46th meeting of the **AVRDC Board of Directors** in Thailand from 23-25 April 2013. Board members learned about the Center’s research progress and outreach activities across the region and around the world during **Science Day** on the 23rd, when theme leaders in Germplasm, Breeding, Production, and Consumption presented poster sessions on breeding virus-resistant cucumber, methods for managing the legume pod borer, promoting improved postharvest techniques to smallholder farmers and more at the Research and Training Center in Kamphaeng Saen. A color scheme inspired by the deep blue flowers of the butterfly pea, a popular traditional vegetable in Southeast Asia, was carried through to the refreshments, which included a cooling blue drink made from the flowers.

**Chin-Fa Wang** and **Min-Huei Tzeng** from Taiwan’s Ministry of Foreign Affairs officially observed the meeting from 24-25 April in Bangkok, along with **Tadayoshi Sueguchi** of the Interchange Association Japan, Taipei Office; he represented board member **Kenichi Okada**, who could not attend.

AVRDC board chair **Samson Tsou**, Senior Advisor, Science & Technology Policy Research and Information Center, National Applied Research Laboratories, Taiwan retired after two years in the seat; his thoughtful guidance and support will be missed. Agricultural Technology Transfer Consultant **Eugene Terry** also retired; his three terms on the board included service as Vice-Chair and Chair of the Executive Committee.

**David Sammons**, Dean of the International Center, University of Florida was appointed Vice-Chair of the Board and Chair of the Executive Committee. **James Phelan**, Professor and Dean of Agricultural Sciences, University College Dublin, Ireland is the new Chair of the Program Committee. **Cathy Reade**, Director of Public Affairs and Communication at the Crawford Fund, Australia was appointed to her first three-year term.

The new board chair, **Yu-Tsai Huang**, Director, Food and Fertilizer Technology Center, Taiwan, was appointed on 20 May 2013. Dr. Huang previously served as an AVRDC board member for three years in the 2000s.
More than 70 scientists and representatives from Taiwan government agencies, seed companies and farmers’ associations toured AVRDC’s headquarters campus for Open Day 2013 on 17 May to get a look at advanced yield trials of tomato and the international chili and sweet pepper nurseries, see the Genebank and Demonstration Garden, and visit displays about the Center’s research.

The four-hour field day aimed to build new and strengthen existing relationships with Taiwan’s research community and the private sector, raise the overall profile of the Center in Taiwan, and give Center research staff a chance to interact with their host-country peers in an informal, informational setting. The Mayor of Tainan City, Lai Ching-te, visited the research displays. A delegation from the Taiwan Council of Agriculture, led by Director General Kuei-sen Sheu of the Department of International Affairs, visited the Genebank and met with AVRDC’s Deputy Directors General Jackie Hughes (Research) and Yin-fu Chang (Administration & Services).

At the Entomology display, visitors got a good close look at several stages of the legume pod borer (Maruca vitrata) life cycle. AVRDC researchers are investigating the use of a wasp parasitoid as a biocontrol against this pest, which causes heavy yield losses in the tropics.

The Nutrition group invited participants to join in games to test their knowledge about vegetables and nutrition. Personal body mass indexes were calculated, and visitors received tips on optimum calorie consumption and recipes to improve the nutritional quality of their diets with (what else?!) vegetables.

Displays on tomato diseases including fusarium wilt, bacterial wilt, and Tomato yellow leaf curl virus drew many curious and interested visitors. Researchers explained various control methods, such as the use of phosphorous acid to check the spread of bacterial wilt.
Farmers who can demonstrate summer tomato production techniques and profitability to other farmers are the key to the successful expansion of summer tomato production in Bangladesh. To that end, AVRDC organized a “Training of Trainers (TOT) on Summer Tomato Integrated Crop and Pest Management” on 16-17 April 2013 at the Regional Agricultural Research Station (RARS) of Bangladesh Agricultural Research Institute (BARI) in Barisal, Bangladesh. The session was a follow-up to the first TOT conducted in April 2012 under the project “Improving income, nutrition and health in Bangladesh through potatoes, sweet potatoes and vegetables” funded by the United States Agency for International Development (USAID).

A total of 30 smallholder farmers attended the training (15 from Jessore and 15 from Barisal districts) to listen to presentations, watch demonstrations and gain hands-on practice alongside the trainers in production methods. Shahabuddin Ahmad, the project’s vegetable sector leader, facilitated the training and Md. Saleh Uddin, Principal Scientific Officer of RARS Barisal, officially opened the course. Mandy Lin, AVRDC Assistant Specialist, Global
Technology Dissemination introduced and explained the concepts for healthy tomato seedling preparation using plastic plug trays, and Shahabuddin Ahmad showed participants the double-transplanting method for seedling preparation. **Zahir Ullah**, project field coordinator, showed participants how to graft tomato with rubber tubing—a method that he learned from the first TOT in 2012. BARI scientists **Anjan K. Das**, S. N. Alam and Md. **Harunor Rashid** demonstrated field preparation, rain shelter construction, crop management, and integrated pest management (IPM) for summer tomato production. The IPM strategies appealed to the participants; all said they would be willing to adopt IPM to reduce their use of insecticide and fungicide on tomato crops. Many also were interested in the availability of biocontrol agents and other approaches.

Results from the evaluation at the end of the course showed 27 out of 30 participants (90%) felt they were well-prepared to apply the knowledge they obtained from the training, and 25 (83%) were confident that they could train other farmers. Each participant received a Bengali brochure introducing the summer tomato technology package and a 72-cell plastic plug tray for raising healthy tomato seedlings. Each lead farmer will train 5 farmers immediately...
after the TOT at their respective localities under the supervision of the project field coordinators. An additional 150 farmers will be trained by the end of May 2013.

AVRDC also organized two training courses on “Nursery business establishment and management for women farmers” on 18 and 20 April 2013 at BARI’s Regional Agricultural Research Stations in Barisal and Jessore. A total of 30 women farmers participated the training (15 in Jessore and 15 in Barisal); eighteen of them had attended the first nursery training in 2012 and 12 were new farmers. Mandy Lin, Shahabuddin Ahmad and Zahir Ullah demonstrated ways to raise healthy tomato seedlings and guided the participants as they grafted tomato scions onto eggplant rootstocks. Two participants proved to be very skillful grafters and helped to teach other group members. Bablu Kumer Barua from International Development Enterprises (IDE) shared basic business knowledge with the farmers, and explained eight important points to consider when establishing a new business venture: type of business, accessibility and demand, materials needed, skill for management (technology, accounting, etc.), capital, profit and risk evaluation, and competition. Mr. Barua encouraged the participants to take a long-term view when planning a business.

In the coming months, 11 nurseries will be formed in the two districts. A 128-cell plastic plug tray was given to each farmer for raising healthy tomato scion seedlings. Simple construction of a large-scale, modified grafting house to accommodate 900 grafted seedlings was demonstrated. When the women’s grafting skills have improved, they will be linked with small-scale nurserymen to serve as seedling traders; they will collect grafted seedlings from women’s group nurseries and sell them to tomato farmers. Participants expressed a strong desire to make the nursery program a success and to run a small business.
The Center in the news

Africa in Fact: The Journal of Good Governance Africa, published an article entitled “Tomato catch-up” by Christopher Pala in the May 2013 issue to highlight the challenges farmers face when transporting fresh tomatoes from Burkina Faso to Ghana. Rough roads jostle and bruise delicate fruit, high temperatures hasten rot, and frequent stops to check documentation further delay shipments en route to market. Researchers at the University of Twente in the Netherlands developed a computer program that creates the best daily itinerary for tomato trucks on the route, helping to reduce spoilage of the ripe fruit—and ensuring more fresh vegetables reach consumers. AVRDC Tomato Breeder Peter Hanson was quoted in the story.

“Tomato catch-up”
www.gga.org

AVRDC: In the Top 40!

FoodTank recently listed 40 organizations working to change the way we eat, grow, cook, buy, and sell food. AVRDC – The World Vegetable Center was among the select, which also included the ONE Campaign, Slow Food International, the World Food Program and others. FoodTank informs and inspires people to take individual and collective steps to develop a healthy and sustainable food system.

http://foodtank.org/news/2013/05/forty-organizations-that-are-shaking-up-the-food-system

Solutions for sanitation

Robert Holmer, Regional Director East and Southeast Asia, attended the 2nd Asia-Pacific Water Summit Technical Workshop “Sustainable Sanitation: Solutions for Realizing Universal Access by 2025” on 18 May 2013 in Chiang Mai, Thailand. He presented “A simple plot: Connecting agriculture, nutrition and health through vegetable gardens” to a roundtable discussion, which was attended by, among others, Kotaro Takemura, Secretary General, Japan Water Forum; Donovan Storey, Chief, Sustainable Urban Development Section, United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP); Arthur Wood, Total Impact Advisors; and Deepak Jolly, Vice President, Public Affairs & Communication, Coca-Cola India, who reported on Coca-Cola’s efforts to support water and sanitation programs in schools in India, Nepal and other countries. The proper treatment of wastewater and its re-use as a resource to enhance agriculture productivity and close nutrient cycles was one of the workshop’s recommendations to achieve sustainable sanitation targets by 2025. Robert also met with Olivia La O’Castillo, member of the UN Secretary General’s Advisory Board on Water and Sanitation (UNSGAB), who served as a keynote speaker during last year’s SEAVEG 2012 Regional Symposium in Chiang Mai.
On 31 May 2013 Seed Marketing Specialist Takemore Chagomoka left his post in Cameroon to pursue a Ph.D. under the GlobE-Urban FoodPlus Project at the University of Freiburg, Germany. During his four and a half years with AVRDC, Takemore encouraged public and private sector partners to participate in activities to improve seed handling and distribution in Africa, bringing a lively smile, an engaging manner and a dedication to problem solving to the table. He worked on commercialization of AVRDC improved vegetable varieties in Africa, and also analyzed the value chain for traditional vegetables in Malawi and Mozambique. Best of luck with your future research, Takemore!

Jan Chang, Postdoctoral Fellow - Molecular Entomology, discussed several novel molecular approaches to insect pest management with headquarters staff on 16 May 2013. Jan’s work covers the characterization and expression of the PBAN gene in the legume pod borer (Maruca vitrata); the phylogeographic structure of eggplant fruit and shoot borer (Leucinodes orbonalis) in South and Southeast Asia; and molecular methods for the identification of thrips (Thysanoptera) species.

On 24 May, Stefanie Schläger, a training scholar from Humboldt University, Berlin, Germany, presented her study on “Identification of sex pheromone blend variation of Maruca vitrata for refining lures in Southeast Asia.” Various lures have not attracted male moths in the field, and Stefanie is hoping to determine if there is a missing isomer or new compound that would be needed to draw the moths to the traps.

Greg Luther, Technology Dissemination Specialist, updated colleagues on the Vegetables for Indonesia project on 23 May. The project, which aims to enhance household nutrition, incomes and livelihoods in East Java and Bali, involves stakeholders in identifying and prioritizing problems related to chili and tomato production, and in carrying out research to find solutions. In several training of trainers sessions, participants learned how to analyze an agroecosystem, facilitate farmer field schools, save seed, construct rain shelters for crops, graft tomato, and other skills. School gardens and seed kits for disaster response are also part of project activities.

Pepper Breeder Myeong-cheoul Cho, seconded to AVRDC from the Rural Development Administration, Korea, reported on his work on pepper anthracnose, which causes losses of US $100 million annually in the country. Koreans are the world’s #1 consumers of chili, but cultivation areas and productivity are decreasing and disease incidence is increasing. Myeong-cheoul tested AVRDC anthracnose-resistant germplasm under natural field conditions and with artificial inoculation methods to select 11 lines for further study. The lines will crossed, evaluated for horticultural characters, and tested in the field to select new resistant lines.
Eight visitors from Holy Family Foreign Migrants Service Center visited the Center on 14 May 2013. Maureen Mecozzi (right), AVRDC Head of Communications and Information, briefed them about the Center’s research activities and facilities. They also toured the Center’s Vegetable Demonstration Garden and Genebank.

(Left to right): Sanjeet Kumar, AVRDC pepper breeder, met Parag Agarwal, Principal Breeder, Vimal Chawda, Managing Director, and Ashok Patel, Biotechnologist from VNR Seeds Pvt. Ltd., India when they visited the Center on 15 May 2013. They were interested in learning about the Center’s plant breeding and pathology research, and discussed topics of mutual interest for research and development.

Michael Wyzan (c), M&E Team Leader, Economic Growth and Agriculture Office USAID Islamabad, Pakistan and his family visited the Center on 31 May 2013. They met with AVRDC Director General Dyno Keatinge (l) and Technology Dissemination Specialist Greg Luther. Genebank Manager Andreas Ebert (2nd from left) briefed the visitors on current genebank activities. The Wyzans also toured the Center’s Vegetable Demonstration Garden.

(...continued on page 12)
Tenzin Chophel, Chief Planning Officer, Nima Om, Legal Officer and Sherab Wangchuk, Deputy Chief from the Policy and Planning Division, Ministry of Agriculture and Forests, Bhutan visited the Center on 21 May 2013. They were accompanied by an official from the Taiwan Council of Agriculture (COA) and the International Center for Land Policy Studies and Training. They learned about the Center's research and development activities, in particular the Vegetables Go to School initiative.

John Beer (top-center), Director for Research and Development at the Center for Tropical Agricultural Research and Education (CATIE) visited AVRDC from 27-28 May to discuss opportunities for scientific interaction between the two centers. CATIE is an international "land grant" university striving for climate-smart agricultural landscapes by providing post-graduate education in policy and research for agriculture and the sustainable use of natural resources in South America, Central America and Mexico. The institution takes a systems approach to link social and economic variables across local, national and regional landscapes. During his visit, Dr. Beer, an agroforestry specialist, met with AVRDC management and researchers, toured the Genebank and Demonstration Garden, and gave a presentation to staff about CATIE’s work. He also visited the Tungshan Farmers Association and the Taiwan Agricultural Research Institute, and savored a cup of coffee brewed from beans grown along Taiwan’s famous Dongshan Coffee Highway. Dr. Beer’s visit was the eighth in a series entitled Networking to Enhance International Cooperation in Vegetable Research and Development sponsored at AVRDC headquarters by Taiwan’s Ministry of Foreign Affairs.

A film crew from Taiwan Public Television filmed the Center’s research activities for a children’s program entitled “Follow Me Go!” on 28 May.
The Secretariat of the Association of Southeast Asian Nations (ASEAN) together with the Food and Agriculture Organization of the United Nations (FAO), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Swiss Agency for Development and Cooperation (SDC) organized a Regional Expert Forum on Climate Change, Agriculture and Food Security in ASEAN on 2-3 May 2013, Bangkok, Thailand, to support the ASEAN Multi-Sectoral Framework on Climate Change: Agriculture and Forestry towards Food Security (AFCC) in its work. The goal of the AFCC is to contribute to food security through sustainable, efficient and effective use of land, forest, water and aquatic resources by minimizing the risks to and impacts of their contributions to climate change. More than 100 participants from different ASEAN countries and regional development partners shared information on best practices and developed recommendations for ASEAN member states on how to promote cross-sectoral coordination and collaboration to address climate change-related threats to agriculture and food security through the AFCC. Robert Holmer, Regional Director, East and Southeast Asia, represented AVRDC – The World Vegetable Center and facilitated a working group discussion on innovative climate-smart agricultural technologies with the potential to strengthen resilience, improve productivity and reduce emissions of agricultural production systems and value chains to sustainably feed and nourish the world’s growing population.

Welcome

On 16 May 2013 Ph.D. scholar Analiza Miso began working with AVRDC East and Southeast Asia on the project “Socioeconomic Impact Pathway Analysis of AVRDC – The World Vegetable Center’s Global Technology Dissemination in Southeast Asia” as part of her studies at the Department of Agricultural and Resource Economics of Kasetsart University, Bangkok, Thailand. She will be supervised by Charuk Singhapreecha, Dean, Faculty of Economics, Kasetsart University and Pepijn Schreinemachers, AVRDC Socioeconomist. Previously Analiza was Director of the Sustainable Sanitation Center at Xavier University, Philippines. She holds a master’s degree in Agricultural Economics from the University of Hohenheim, Germany.
International Legume Society launched

AVRDC Legume Breeder Ram Nair attended the first International Legume Society conference from 9-11 May 2013 at Novi Sad, Serbia. More than 250 delegates from around the world gathered to officially launch the new society, which aims to build on the rich research tradition of the European Association for Grain Legume Research (AEP) and to link together research on all legumes worldwide—from grain to forage, pharmaceutical and ornamental.

Participants gave presentations on achievements and challenges in crop legume research; genetic resources and phylogenetic relationships; legumes in foods and impacts on human health; advances in legume breeding; seed production; legume-microbe interactions; how to encourage more people to grow and eat legumes, and other topics related to production and marketing. Ram presented a paper on the Legume Improvement Program at AVRDC –The World Vegetable Center: Impact and future prospects co-authored by Roland Schafleitner, Warwick Easdown, Andreas Ebert, Peter Hanson, Jacqueline Hughes, and Dyno Keatinge.

The event also announced a new journal, Legume Perspectives. Four issues are planned for 2013 (No. 1 on soybean, already has been published). Ram serves on the journal’s editorial board.
Seed companies have always promoted the abundant harvests their products deliver. But can they also spread the word about nutrition and health? AVRDC Nutritionist Ray-Yu Yang, Tomato Breeder Peter Hanson, and AVRDC Bangladesh Vegetable Sector Leader Shahabuddin Ahmad have joined with Lal Teer Seed Limited in Bangladesh to give the concept a try. Together with Lal Teer Seed R&D Manager Gazi Md. Mohsin and Marketing Manager S. M. Abdul Mukit, the team developed a Seed Grant Proposal for A4NH (Agriculture for Nutrition and Health, a CGIAR Research Program) to promote greater vegetable consumption and healthier diets in Bangladesh through nutrition messages to be distributed by Lal Teer as part of its overall marketing effort. Staff will receive training in nutrition awareness, and the effects of the promotion on consumer behavior will be measured. The novel proposal was approved by A4NH, and will be led by the International Food Policy Research Institute (IFPRI). If successful in Bangladesh, the model could be extended to other seed companies in Asia and Africa. AVRDC Director General Dyno Keatinge recently visited Lal Teer to sign a Memorandum of Understanding with Lal Teer Chairman Abdul Awal Mintoo and tour the company’s laboratories, seed processing and quality control unit. Lal Teer aims to supply high quality, well-adapted seed to reduce the need for imported seed; it currently produces seed of 32 vegetable crops with 128 varieties.
Vegetables going to school in ASEAN

Inspired by the ASEAN-AVRDC Regional Network for Vegetable Research and Development (AARNET) Expert Consultation on “Home, School and other Public Facility Vegetable Gardens in Southeast Asia” held from 27-30 August 2012 in Bangkok, AARNET partners have initiated school garden activities in Cambodia, Myanmar, the Philippines and Thailand.

In Cambodia, three school gardens were established in the secondary schools of Baray, Wat Tom and Ang Methrey in Takeo province by the General Directorate of Agriculture. A total of 75 students were trained on how to grow safe and nutritious vegetables and taught about the benefits of eating more vegetables. The students were further encouraged to share their knowledge with their families and other members of the community to promote growing vegetables at home.

Under the guidance of the Myanmar Ministry of Agriculture and Irrigation, a school garden has been established at No. (54) Post Primary School, located in Khoe Ywar Tha Pyay Kone Village, Popa Thi Yi Township near Myanmar’s capital Nay Pyi Taw. The project began on 14 November 2012 and involves 430 students and 24 teachers, who are growing beans, cabbage, kangkong, mustard, roselle, eggplant, okra and chili pepper.

In Thailand, the AARNET initiative supported the implementation of two vegetable demonstration gardens in Bangkok, Thailand for orphans, street children and children affected by HIV/AIDS in collaboration with Mercy Center, a local NGO, which is under the royal patronage of HRH Princess Srirasmi, the Princess Consort to the Crown Prince of Siam. Eight school gardens were supported in Kamphaeng Saen, Nakhon Pathom as part of the outreach program of Kasetsart University, AVRDC’s host organization in Thailand. AVRDC provided vegetable seed kits and agricultural inputs, and trained students and staff in basic vegetable production skills.

The Health and Nutrition Center of the Philippine Department of Education has recently launched the project “School-Based Vegetable Garden Models in Flood-prone Areas” in five different schools of Metro Manila, which will focus on climate-smart production technologies.
On 12 May 2013, 15 participants from Afghanistan and Bangladesh arrived at AVRDC’s Research and Training Station in Kamphaeng Saen, Thailand, to attend a one-month training of trainers course entitled “Vegetable Cultivation and Consumption for Better Nutrition” jointly organized by AVRDC – The World Vegetable Center and the Regional Office for Asia and the Pacific of the Food and Agriculture Organization of the United Nations (FAO).

The participants represent the Home Economics (7) and Horticulture Departments (4) of Afghanistan’s Ministry of Agriculture, Irrigation and Livestock, FAO’s Office in Afghanistan (1) and the Department of Agricultural Extension (3) of Bangladesh’s Ministry of Agriculture.

The course emphasizes advanced and sustainable vegetable production, postharvest and processing technologies, farmers field schools, agriculture extension methods, human health and nutrition, and vegetable marketing. It aims to enhance participants’ technical, scientific and managerial skills so that they may contribute to increasing the production and consumption of health-promoting vegetables in their home countries.

Robert Holmer, Regional Director, AVRDC East and Southeast Asia and Nomindelger Bayasgalanbat, Technical Officer Nutrition, FAO welcomed the group. Sheila de Lima, Admin and Training Officer, gave an overview of the course to the participants. This included an introduction to Development Action Planning, a written output which is expected of each participant at the end of the training.

The first week was filled with lectures and exercises related to sustainable vegetable production technologies such as principles of soil management (by Youngyuth Osotsapa of Kasetsart University), composting and vermicomposting (Somchai Chansaowang, Kasetsart University), seed health management (Somsiri Chaenhsote, Kasetsart University), seedling management (Grisana Linwattana, Thai Department of Agriculture), ex situ and in situ conservation of plant genetic resources, vegetable seed regeneration and quality preservation (Andreas Ebert, AVRDC Genebank Manager), micro-irrigation for vegetable production (Pongsakorn Buddhachai, Netafim Thailand) as well as extension principles and processes (Areephan Upanisakorn, Thai Department of Agriculture and Extension).

After their first week of study, the participants had the opportunity to enjoy a sightseeing tour of Bangkok, which included a visit to the famous Grand Palace.

(top): Najeeba Karimi practices grafting, a new skill learned during the TOT.
40 years of service to tropical agriculture

Over the past four decades, hundreds of people have contributed their talents and expertise to carry out AVRDC – The World Vegetable Center’s mission of increasing the production and consumption of nutritious, health-promoting vegetables in developing countries. We share their reflections on working at the Center.

The research activities, training programs and international exposure at AVRDC opened the door to many opportunities for me. I am now employed at the Yakima Agricultural Research Laboratory, United States Department of Agriculture, Wapato, Washington USA. AVRDC’s research setup contributed to my productivity; with the help of my AVRDC colleagues, I was able to publish two peer-reviewed papers and one book chapter during my time in Taiwan. Over the holidays I visited many tourist sites in Taiwan. I had some unforgettable moments, and experienced the wonderful hospitality of the people of Taiwan!

Venkatesan Sengoda Gounder

Post-doc

Plant Virology and Biotechnology

2005-2008