

Newsletter

1st Issue 2015

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News Highlights

The Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM) Establishes a Technical Working Group (TWG)

Based on nominations from 13 member States of ESCAP, the Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM) established a Technical Working Group (TWG) and its sub-working groups to kick off standard-setting work of ANTAM in February 2015.

The TWG is tasked to develop and review ANTAM testing codes and procedures, and provide technical support to ANTAM. It is composed of technical experts nominated by member countries in the field of agricultural machinery testing and agricultural engineering.

Thirteen members from 11 countries were finally selected as members of the TWG, which was divided into three sub-working groups based on the work plan of ANTAM, namely Sub-working Group on Power Tillers (SWGPT), Sub-working Group on Sprayers (SWGS), and Sub-working Group on Simplified ROPS for Tractors (SWGR).



Members of the SWGS are:

- Ms. Ayesha Herath, Farm Mechanization Research Centre of Sri Lanka (Team Leader)
- Mr. Douzals Jean-Paul, l'Institut de recherche en sciences et technologies pour l'environnement et l'agriculture (IRSTEA) of France
- Mr. K.N. Agrawal, Central Institute of Agricultural Engineering of India
- Mr. NGO Van Phuong, Machinery Testing Centre of Viet Nam
- Mr. ZHANG Xiaochen, China Agricultural Machinery Testing Centre

Members of the SWGPT are:

- Mr. Anuchit Chamsing, Agricultural Engineering Research Institute of Thailand
- Mr. CHANG Xiongbo, China Agricultural Machinery Testing Centre
- Mr. C.R. Lohi, Central Farm Machinery Training & Testing Institute of India (Team Leader)
- Mr. Darwin Aranguren, Agricultural Machinery Testing and Evaluation Centre of the Philippines
- Mr. Israil Hossain, Bangladesh Agricultural Research Institute
- Mr. Jandool Khan, Agricultural and Biological Engineering Institute of Pakistan
- Mr. Sinh Chao, Department of Agricultural Engineering of the General Directorate of Agriculture of Cambodia
- Mr. Vadim Pronin, Association of Testing of Agricultural Machinery and Technologies of Russia

Mr. Lohi, Mr. Chang and Mr. Pronin are concurrently members of the SWGR with Mr. Lohi as the team leader.

The first TWG meeting is scheduled to be held on May 4-6 in Serpong, Indonesia in collaboration with the Indonesian Centre for Agricultural Engineering, Research and Development (ICAERD) where the TWG members are expected to reach consensus on the first sets of ANTAM test codes and procedures for sprayers, power tillers and simplified ROPS for tractors. Several rounds of on-line technical consultations among the TWG members to narrow down difference and harmonize standards will be held before the meeting. The ANTAM codes will be submitted to the 2nd annual meeting of ANTAM in December for final adoption.

CSAM Activities in Focus

■ New Project:

Training on Agricultural Mechanization for Korean Academy of Agricultural Sciences (KAAS) of the Democratic People's Republic of Korea

At the request of the Democratic People's Republic of Korea, in partnership with Macroeconomic Policy and Development Division of ESCAP and the China Agricultural University, CSAM will carry out a training course on agricultural mechanization for the professionals and experts from the Korean Academy of Agricultural Sciences (KAAS) of the Democratic People's Republic of Korea (DPRK). Tailored to the specific condition and context of DPRK, the proposed training is aimed to enhance the awareness, knowledge and capacity of the participants of the Korean Academy of Agricultural Sciences so as to promote agricultural mechanization development in DPRK and contribute to their efforts in combating hunger and malnutrition. The training program will include theory, policy and technical aspects of agricultural mechanization and tailored field trips and a tour to an agricultural machinery expo. The training will be conducted on 31 March - 21 April 2015 in Beijing.



■ On-going Activities:

Regional Database of Agricultural Mechanization in Asia and the Pacific

The Regional Workshop on Establishing a Regional Database of Agricultural Mechanization in Asia and the Pacific held in Siem Reap, Cambodia on 17-19 November, 2014, applauded the initiative of CSAM to establish a regional database of agricultural mechanization in Asia and the Pacific. The database is expected to assist member countries in identifying the level of agricultural mechanization, facilitate industry adjustment and technology innovation and trade of agricultural machinery. Two consultants Prof. Yang Minli from the China Agriculture University and Mr. Peeyush Soni from the Asian Institute of Technology have been recruited to assist with the initial work, including: a) undertake survey of the data availability and needs of member countries; b) develop an overall framework defining the regional database; c) prepare a template or pro forma of core dataset and indicators to seek comments and consensus from member countries and other key stakeholders; and d) develop a concrete work plan.

Website Survey and Improvement

In order to enhance information sharing, facilitate technology exchange and increase member countries' access to policy options for sustainable agricultural mechanization, CSAM plans to add more functions to the existing website. A survey on the website was conducted from 23-31 January 2015 to seek users' comments on experiences and their ideas on how CSAM can best develop its website to make it more user-friendly and interesting. CSAM received feedback from member countries including India, Vietnam, Sri Lanka, Russia, Pakistan, Thailand, and China. Through the feedback, it is found that the participants' frequency of visiting CSAM website is at medium level. Participants visit the website for multiple purposes, including updates and information on CSAM activities, technological development and regional cooperation in the field of agricultural mechanization. Most of the participants graded the accessibility as "above-average". The survey indicates that the priority area for the website improvement should focus on the overall design including font size and color contrast. Member countries also expressed willingness to contribute to the website content and participate in on-line discussions. Based on survey results, CSAM will design a work plan to improve on-line communication to better respond to the emerging needs of member countries. In addition, CSAM is also working to develop websites for the Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM) and the Regional Council of Agricultural Machinery Associations in Asia and the Pacific. These two websites are expected to be launched by the end of the 2nd quarter of 2015.

Publications

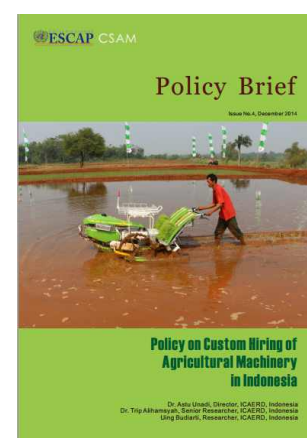
Proceedings of the 2nd Regional Forum on Sustainable Agricultural Mechanization in Asia and the Pacific 2014

Proceedings of the 2nd Regional Forum on Sustainable Agricultural Mechanization in Asia and the Pacific held on 9-11 September 2014 in Serpong, Indonesia will be released in early April 2015. The 2nd regional forum was themed on “Enabling Environment for Custom Hiring of Agricultural Machinery”. The proceedings synthesize the country papers on custom hiring practices and presentations made by peer organizations to share pertinent initiatives. It also contains recommendations and way forward for creating an enabling environment for custom hiring of agricultural machinery in support of sustainable agriculture, food security and poverty alleviation in the region.



Policy Brief on Custom Hiring of Agricultural Machinery in Indonesia

The Policy Brief on Custom Hiring of Agricultural Machinery in Indonesia authored by Dr. Astu Unadi, Director, Dr. Trip Alihamsyah, Senior Researcher, and Mr. Uing Budiarti, Researcher of the Indonesian Centre for Agricultural Engineering Research and Development (ICAERD), Indonesian Agency for Agricultural Research and Development (IAARD), Ministry of Agriculture of Indonesia has been released. This special feature provides an overview of policies and best practices in promoting custom hiring adopted by Indonesia. The e-version is available at: <http://un-csam.org/publication/PB1404id.pdf>.



Member Country Snapshot

CSAM Focal Point in Nepal: Nepal Agricultural Research Council (NARC)

Nepal Agricultural Research Council (NARC) was established in 1991 as an autonomous organization under "Nepal Agricultural Research Council Act 1991" to conduct agricultural research in the country and to uplift the economic level of the people. The objectives of NARC include: to conduct qualitative studies and researches on different aspects of agriculture; to identify the existing problems in agriculture and find out the solution; and to assist government in formulation of agricultural policies and strategies. The functions and responsibilities of NARC are conducting qualitative agricultural research required for national agricultural policies, prioritizing studies and researches to be conducted, providing research and consultancy services to the clients, coordinating, monitoring and evaluating agricultural research activities in Nepal, etc.



NARC has been an active participant of CSAM activities. CSAM and NARC are looking into cooperation on hosting events in the year 2015.

Organic Farming in Malaysia

By Dr. Mohd Norowi Hamid, Strategic Resources Research Centre, MARDI

Organic farming uses almost exclusively biological and natural materials and processes to produce food. The practice aims to protect human health and conserve, maintain or enhance natural resources, with the goal to preserve the quality of the environment for future generations while being economically sustainable. Organic farming has grown rapidly throughout the world in recent years. In Malaysia, it was started by non-government organizations (NGOs) and it has been promoted by NGOs since the mid-1990s. However the imports of organic products into the country occurred long before that and consist mostly of organic fruits mainly from Australia, New Zealand, China, Korea and Japan. The first domestic production was sold through a subscription scheme that reached more than 500 families in 1995. The turnover of organic products, mainly imports, was estimated at US\$20 million in 2004 and the production at 900 hectares, mainly in fruit and vegetables.

In early 2000, the government of Malaysia through the Department of Agriculture (DOA) foresaw the industry in the future. DOA decided to take action by establishing and launching the national regulations for the Malaysian Organic Certification Programme known as Sijil Organic Malaysia (SOM). In 2003, to facilitate organic farming in Malaysia and to certify farms, the Malaysian Standard MS1529:2001 was set up. The standard strictly sets the requirements for all stages of crop production and for control hazards that affect the environment, food and workers' health and safety.

Read More: <http://zh.scribd.com/doc/257641057/Scientia-MARDI-Vol-004-February-2015>
(Source: Website of Malaysian Agricultural Research and Development Institute)

Pakistan Agricultural Conference and Exhibition 2015

Pakistan Agriculture Conference and Exhibition 2015 was held on 27-28 February in Islamabad. It was organized by KMK Global Limited and the Pakistan Agricultural Research Council (PARC), the apex body in agriculture research in the Pakistan. The objective of the event is to provide a platform where coverage is given to all elements of the agriculture industry in Pakistan, in order to achieve progress, dialogue and interaction. The two-day event drew extensive participation from farmers, investors, executives, government representatives, heads of agriculture departments, exporters and importers across the country. The conference was also attended by high officials from the Ministry for Food Security and Research, PARC and the National Agriculture Research Center (NARC).

Federal Minister for National Food Security and Research (NFS&R), Sikandar Hayat Khan Bosan said that concerted efforts were being made to improve farm level practices and develop linkages of farmers with markets and Industry. "We are committed to increasing the existing productivity to ensure better returns to farmers," the minister said while addressing the event. According to the Minister, agriculture sector had traditionally sustained a satisfactory growth to ensure food security of country's growing population, however low returns to the farmers for their commodities because of higher costs of production had been the challenges. "So this calls for well-thought intervention to improve value addition to agriculture products at farm levels and creation of industrial linkages," the minister remarked.

Under the Prime Minister's Youth Loan Program, the areas like livestock, horticulture, and fisheries as well as non-farm sector would benefit, and this would result in overall economic betterment of rural masses and generate raw material for our growing food industries, the minister observed.

Read more: <http://www.parc.gov.pk/index.php/en/component/content/article/122-news-flash/913-pakistan-agricultural-conference-and-exhibition-2015>
(Source: website of Pakistan Agricultural Research Council)

More Pacific Nations Invited for Regional Alliance

Solomon Islands and Vanuatu have been invited to join the Asia-Pacific Association of Agricultural Research Institutes (APAARI) and be part of the broader network for development and prosperity.

APAARI's mission is to promote the development of NARS (National Agricultural Research Systems) in the Asia-Pacific region through inter-regional and inter-institutional cooperation. APAARI's vision 2025 has been

set as “Agricultural Research for Development (ARD) in the Asia-Pacific region is effectively promoted and facilitated through novel partnerships among NARS and other related organizations so that it contributes to sustainable improvements in the productivity of agricultural systems and to the quality of the natural resource base that underpins agriculture, thereby enhancing food and nutrition security, economic and social well being of communities and the integrity of the environment and services it provides”.

APAARI Executive Secretary Dr Raghunath Ghodake was quoted as saying “being part of the regional alliance will enhance more engagement and collaboration with regional and international bodies for greater benefit of sharing and advancement.”

The University of Technology of Papua New Guinea and National Agricultural Research Institute of Papua New Guinea are current members, alongside other research-based institutions from Fiji, Samoa, New Caledonia and Tonga (soon).

“In fact, that has been my dream to get as many NARS from the Pacific region to be APAARI members so that we all are mainstreamed and in limelight of the global alliances for benefit of sharing,” says Dr Ghodake.

Dr Ghodake had spent over 30 years in the Pacific, particularly PNG, before moving to Bangkok last year to take up his new role at APAARI, which has supported NARIs over years in research, collaboration, and information and knowledge management. “There are many benefits to be shared including opportunities to be interacting with and sharing knowledge from not only other developing and developed countries but also CGIAR (Consultative Group on International Agricultural Research) centers and advanced agricultural research centers,” he said.

(Source: website of PNG National Agricultural Research Institute)

Hundred-year Old Agricultural Machines and Tools in Australia Became Cultural Heritage

In a farm at Riverina, New South Wales in Australia, there displayed rusted disk harrows, seeders and other agricultural machines. Most of the machines are more than one hundred years' old. They were the "pioneers" during the process where Australia became an important agricultural country. As time passing by, these machines had been replaced by new generation products, and had been forgotten.

Now their contribution will be recognized again. The City Council of Wagga, Riverina and the Museum of Applied Art and Science are preparing a project called Dialogue with Machinery, which will tell the stories of machinery in Australian history. The project receives AUD150,000 from the New South Wales. “Agricultural machinery is an important part of historical and cultural heritage of Riverina. We are making effort in collecting agricultural machines for demonstration.” A project manager said. The project is to produce a video of 40 episodes, which will be released online and provided to students in schools.

(Source: China Agricultural Mechanization Herald, Issue 519, 16 February 2015)

Japan to Upgrade Small and Medium Horsepower Agricultural Engine Emission Standards

Engines are becoming more energy-efficient and high-torque contributing to an increased efficiency in agricultural production. In Japan, the commonly used agricultural engines are from 19 KW (26 horsepower) to 37 KW (50 horsepower). Beginning this year, the Japanese government will limit gas emission standards for these commonly used engines.

The new generation engines will be equipped with diesel particulate filter (DPF), urea-selective catalyzing reduction device (SCR), recycling system of oxidation catalyst for the exhaust gas, high precision common-rail fuel injection and an integrated digital control device. These new devices will effectively reduce particulate matter (PM) and nitrogen oxide (NOX) in the exhaust gas. The commonly used digital control device in common-rail system for big horsepower engines will be used on these small and medium horsepower engines. A clean exhaust gas, increased engine power, reduced vibration and noise can be achieved with optimal control on the fuel injection. The Head of the Tractor Department of the Japan Agricultural Machinery Industry Association is expecting a very positive response from the market on these new generation engines.

(Source: China Agricultural Mechanization Herald, Issue 519, 16 February 2015)

2015 International Year of Soils - Healthy Soils are the Basis for Healthy Food Production

It is estimated that 95% of our food is directly or indirectly produced on our soils.

Healthy soils are the foundation of the food system. Our soils are the basis for agriculture and the medium in which nearly all food-producing plants grow. Healthy soils produce healthy crops that in turn nourish people and animals. Indeed, soil quality is directly linked to food quality and quantity.

Soils supply the essential nutrients, water, oxygen and root support that our food-producing plants need to grow and flourish. They also serve as a buffer to protect delicate plant roots from drastic fluctuations in temperature.

A healthy soil is a living soil

A healthy soil is a living, dynamic ecosystem, teeming with microscopic and larger organisms that perform many vital functions including converting dead and decaying matter as well as minerals to plant nutrients (nutrient cycling); controlling plant disease, insect and weed pests; improving soil structure with positive effects for soil water and nutrient holding capacity, and ultimately improving crop production. A healthy soil also contributes to mitigating climate change by maintaining or increasing its carbon content.

Why is soil organic matter so important?

Soil organic matter - the product of on-site biological decomposition - affects the chemical and physical properties of the soil and its overall health. Its composition and breakdown rate affect: the soil structure and porosity; the water infiltration rate and moisture holding capacity of soils; the diversity and biological activity of soil organisms; and plant nutrient availability.

Nutrient exchanges between organic matter, water and soil are essential to soil fertility and need to be maintained for sustainable production purposes. When the soil is exploited for crop production without restoring the organic matter and nutrient contents, the nutrient cycles are broken, soil fertility declines and the balance in the agro-ecosystem is destroyed.

Soils are a crucial ally to food security and nutrition

Food availability relies on soils: nutritious and good quality food and animal fodder can only be produced if our soils are healthy living soils. Over the last 50 years, advances in agricultural technology and increased demand due to a growing population have put our soils under increasing pressure. In many countries, intensive crop production has depleted the soil, jeopardizing the soils productive capacity and ability to meet the needs of future generations.

Maintaining a healthy soil implies managing the land sustainably

With a global population that is projected to exceed 9 billion by 2050, compounded by competition for land and water resources and the impact of climate change, our current and future food security hinges on our ability to increase yields and food quality using the soils that are already under production today.

Holistic production management systems that promote and enhance agro-ecosystem health that are socially, ecologically and economically sustainable are necessary in order to protect our soils while maintaining high productive capacities.

FAO publication:

Healthy Soils are the Basis for Healthy Food Production

<http://www.fao.org/documents/card/en/c/645883cd-ba28-4b16-a7b8-34babbb3c505/>

World Fertilizer Trends and Outlook to 2018

<http://www.fao.org/documents/card/en/c/db95327a-5936-4d01-b67d-7e55e532e8f5/>

(Source: FAO website)

China and FAO Working Together to Preserve Globally Important Agricultural Heritage Sites

FAO and China have agreed to bolster their collaboration in the safeguarding of iconic cultural farming systems such as the spectacular Hani rice terraces in Yunnan province.

The two partners have recently signed a new Memorandum of Understanding (MoU) - Strengthening the Implementation of Globally Important Agricultural Heritage Systems (GIAHS) Initiative through Capacity Development under the South-South Cooperation (SSC) Framework - to scale-up cooperation under FAO's Globally Important Agricultural Heritage Systems Initiative.

FAO is actively engaging with its global, regional and country partners to identify, support and safeguard the traditional systems of agriculture, forestry, fisheries and livestock which make up GIAHS. This work emphasizes the pivotal role that small-scale producers, family farmers, indigenous peoples and local communities play in the conservation and sustainable utilization of biodiversity and genetic resources.

"Since 2002, when FAO launched the GIAHS, the initiative has played an important and positive role in protecting biological diversity, carrying forward indigenous agricultural knowledge, invigorating rural areas and increasing farmers' income, and has provided a new approach to achieving global food security and agricultural sustainability," said Mr. Wang Ying, Director-General of the Department of International Cooperation of the Ministry of Agriculture of China. "China has been one of the pioneering countries strongly supporting the GIAHS initiative since its inception," according to Mr. Wang.

(Source : FAO website)

Preparation for the 13th Five-Year Plan of Agricultural Mechanization in China Started

On 7 February 2015, the Preparatory meeting for the 13th Five-Year Plan of Agricultural Mechanization Development was held in Beijing, China. The plan was scheduled to be launched in the beginning of 2016.

Mr. Li Weiguo, head of the taskforce and Director General of the Department of Agricultural Mechanization, Ministry of Agriculture, emphasized that innovative thinking should be employed to set the goals, priorities, and actions towards promoting agricultural mechanization development in China. The preparation work should be guided by the outcome documents of the 18th CPC (Communist Party of China) National Congress, the Third and the Forth Plenary Session of the 18th Central Committee of the CPC and the overall arrangement of the 13th Five-Year Plan for National Economic and Social Development of China developed by the National Development and Reform Commission, and requirements of the Ministry of Agriculture. It should focus on agricultural and rural development and wellbeing of farmers, three major issues concerning overall economic development in rural China. It should also draw upon experience, achievements and lessons learnt from the 12th Five-Year Plan of Agricultural Mechanization by comprehensively analyzing the new status, new requirements and new tasks in the coming development phase.

(Source : China Agricultural Mechanization Herald, Issue 519, 16 February, 2015)

Meeting People



Ms. Camilla Stelitano (Individual Contractor)

Ms. Camilla Stelitano, will work in CSAM starting from 1 April 2015 as an individual contractor to assist project implementation. She will also facilitate public information and communication work of CSAM. Ms. Stelitano got her bachelor's degree in Oriental Cultures and Languages in 2011 from the University of Rome in La Sapienza. In 2014, she obtained her master's degree in Public Administration in International Development from the Tsinghua University in Beijing (Distinctions), China. From September 2014 to March 2015, she interned at CSAM.

Provisional Timetable of CSAM Meetings & Activities in 2015

Time	Name of the Event	Venue
March 31-April 21, 2015	Training on Agricultural Mechanization for Korean Academy of Agricultural Sciences (KAAS) of DPRK	Beijing, China
May 2015	Meeting of An Integrated Rural Economic and Social Development Program for Livelihoods Improvement in the Dry Zone of Myanmar	Yangon
May 4-6, 2015	The 1 st Technical Working Group (TWG) Meeting of the Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM)	Serpong, Indonesia
May 25-29, 2015	71 st Commission Session of ESCAP	Bangkok, Thailand
June 1-5, 2015	ToT Capacity Building on ANTAM Testing Codes and Procedures	Nanjing, China
September/October 2015	The 3 rd Regional Forum on Sustainable Agricultural Mechanization in Asia and the Pacific	Nepal (TBC)
October 2015	The 1 st Annual Meeting of the Regional Council of Agricultural Machinery Associations in Asia and the Pacific	Wuhan, China
December 3-5, 2015	2 nd Annual Meeting of ANTAM	India
November 16-17, 2015	11 th Session of the Technical Committee of CSAM (11 th TC)	Manila, Philippines
Mid December, 2015	11 th Session of the Governing Council of CSAM (11 th GC)	Bangkok, Thailand

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CSAM, Centre for Sustainable Agricultural Mechanization, is a regional institution of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), based in Beijing, China. CSAM started operations in 2004, built on the achievements of the Regional Network for Agricultural Machinery (RNAM) established in 1977 with support of UNDP, FAO and UNIDO, and the United Nations Asian and Pacific Centre for Agricultural Engineering and Machinery (UNAPCAEM). CSAM serves the 62 members and associate members of UNESCAP.

The vision of CSAM is to achieve production gains, improved rural livelihood and poverty alleviation through sustainable agricultural mechanization for a more resilient, inclusive and sustainable Asia and the Pacific. CSAM's objectives are to enhance technical cooperation among the members and associate members of UNESCAP as well as other interested member States of the United Nations, through extensive exchange of information and sharing of knowledge, and promotion of research and development and agro-business development in the area of sustainable agricultural mechanization and technology transfer for the attainment of the internationally agreed development goals including the Millennium Development Goals in the Asia-Pacific region.

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