

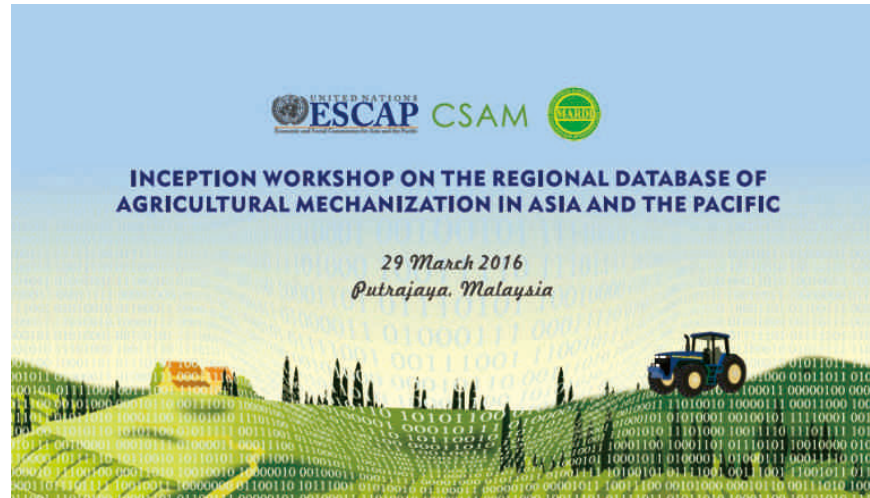
Newsletter

1st Issue 2016



CSAM Activities in Focus

Inception Workshop on Regional Database of Agricultural Mechanization In Asia and the Pacific



In the second part of 2015, CSAM started to take actions to establish a Regional Database of Agricultural Mechanization in Asia and the Pacific.

The database aims to strengthen existing national databases on agricultural mechanization and to assist member countries in identifying the level of agricultural mechanization in the region. The availability of reliable data is expected to facilitate innovation and trade of agricultural machinery.

From 29 to 30 March, CSAM organized an inception workshop in Putrajaya, Malaysia, in collaboration with the Malaysian Agricultural Research and Development Institute (MARDI). The overall objective of the Workshop was to facilitate mutual understanding on this project, seek engagement and collaboration from member countries and to identify opportunities.

The Workshop invited 30 participants from 19 countries including government officials and policy makers, statistics experts, representatives of research and academic institutions, representatives of international organizations and agricultural mechanization associations.

CSAM Activities in Focus

ANTAM Technical Working Groups (TWG) Resumed Consultations in March 2016

In March 2016, ANTAM TWGs on Power Tillers and Misters-Cum-Dusters resumed technical consultations. The TWGs of 2016 welcomed new members from China, Pakistan and Indonesia and agreed to introduce new tests to the Codes, as well as, address technical modifications including possible inclusion of vibration test, field test to power tillers, review of definition and measurement units, changes to testing methodology and simplification of test reports, which proposed by member countries after the 2nd annual meeting ANTAM held in December 2015 in New Delhi, India. Moreover, following the expression of interest of member countries specifically China, Malaysia, Sri Lanka, Thailand and Vietnam, the ANTAM Secretariat will establish a third TWG on Paddy Transplanters.

The 2nd Meeting of ANTAM Technical Working Groups will be held on 10-13 May 2015 in Bangkok, Thailand.

ReCAMA New Website and Latest Activities

The Regional Council of Agricultural Machinery Associations (ReCAMA) newly built website presented the translated list of the official list of agricultural machinery eligible for subsidies in China in 2015 and many more information about agricultural machinery associations in Asia and the Pacific. Please visit the site: www.recama.org

Obituary



CSAM is deeply sorry to announce that the untimely passing of our colleague, Dr. Nguyen Quoc Viet, Chief of the Division of Science, Education and International Cooperation of the Vietnam Institute of Agricultural Engineering and Post-Harvest Technology (VIAEP). Dr. Viet passed away in March after a long battle with cancer. For over a decade, Dr. Nguyen Quoc Viet has been a strong supporter and active participant in CSAM activities. CSAM community is saddened by the loss of a friend and a mentor. We would like to send our condolences to his family and friends.

Member Countries Snapshots

Farm Mechanization and Research Centre (FMRC) , Sri Lanka



The Farm Mechanization and Research Centre (FMRC) is one of the institutes under the Department of Agriculture of Sri Lanka. Specifically, FMRC is under the Engineering Division - Paradeniya. The office of FMRC is responsible for testing, developing, and implementing technologies to suit the local conditions of Sri Lanka. The main objective of FMRC is to launch efficient agricultural mechanization technologies which are compatible with the field and socio-economic conditions that prevail in various regions of the country.

Additional objectives of FMRC are: to create production efficiency by mechanizing the areas affected by labor shortage which are farm and processing, to draw the youth to be involved in agricultural activities and enterprises, to generate agro-based employment opportunities, to implement agricultural machineries appropriate to local conditions and production methods, and lastly, to ensure that there is a continuous supply of tested agricultural machineries to market through an efficient production process.

FMRC has various functions that are performed by the following sections:

Research & Development Section (R&D) - is responsible for design and prototype stage of the machines.

Industrial Extension Section - is responsible for training and assisting local manufacturers in production of agricultural products and machines.

Testing & Evaluation Section - this is where the testing of farm machinery takes place. After that, this section will produce test reports if the farm machinery is suitable for the Sri Lankan field conditions.

Agricultural Extension Section - this segment is tasked with helping Sri Lankan farmers familiarize with new technology through demonstrations, workshops, and exhibitions.

Irrigation & Water Management Section - this division carries out research activities specifically on reducing initial investment cost on irrigation systems and design adaptive irrigation systems for the country.

Adaptive Research Section - this section is responsible for acquiring adaptation trails at different locations to determine if the developed agricultural machinery is in line with different soil conditions, field size and moisture conditions of Sri Lanka.

Analysis Section - this last part is in charge of evaluation of the impact of agriculture machinery to both humans and plants. It also issues reports which show types of damages that different machinery inflict to the environment. Lastly, this section performs experiments on bio-fuels and ways to manage waste in Sri Lanka.

All agricultural products and machinery endorsed by FMRC are analyzed and approved by the seven sections.

For more information, please visit: <http://www.doa.gov.lk/index.php/en/institutes/320>

Development Trends

FAO's 33rd Regional Conference for Asia and the Pacific (APRC) Concludes

The 33rd session of United Nations Food and Agriculture Organization (FAO) Regional Conference for Asia and the Pacific (APRC) was held in Putrajaya, Malaysia on March 7 to 11 2016. The session was hosted by the Ministry of Agriculture & Agro-Based Industry, Malaysia.

The discussions focused on the opportunities and challenges in the region, including improving food security and nutrition, increasing agricultural productivity, raising the standard of living in rural populations and contributing to the sustainable economic growth. The conference further discussed the state of agriculture across the region, including future prospects and emerging issues in the framework of Sustainable Development Goals (SDGs). Moreover, the session also emphasized on revitalizing the rural economy through enhanced linkages between small-scale agricultural production and value chains; promoting national nutrition policies and investments, and integrating nutrition objectives into food and agriculture policy, programme design and implementation; and “blue growth”.

The meeting was attended by agriculture ministers from 46 countries across Asia and the Pacific. Representatives from international non-governmental organizations, intergovernmental organizations, United Nations organizations, civil society organizations and the media were also present.

<http://www.fao.org/family-farming/detail/en/c/384188/>

Enhancing the Agricultural Statistics is Key in Achieving Asia Pacific's Sustainable Development Goals

As Asia and the Pacific region keeps growing and developing rapidly, it is undeniable that the agriculture sector also needs to keep up with the times. But in order to start with the catching up, the United Nations Food and Agriculture Organization (FAO) announced that it is first necessary to obtain more accurate agricultural statistics across Asia and the Pacific so that it will help the region meet its food security targets in the future.

The biennial meeting of the Asia Pacific Commission on Agricultural Statistics (APCAS) reviewed the region's preparedness in achieving the UN Sustainable Development Goals by the year 2030. The 26th Session of the Commission, co-organized by FAO, was convened in Thimphu, Bhutan, from February 15-19, 2016. It was hosted by Bhutan's Ministry of Agriculture and Forests with delegates from 20 countries and sub-regional organizations. The participants deliberated on the challenges of meeting the information needs of the agriculture sector to better monitor and respond to patterns of hunger, food insecurity and malnutrition while highlighting new methodologies and initiatives that will help them achieve the Sustainable Development Goals (SDGs).

<http://www.fao.org/asiapacific/news/detail-events/en/c/383093/>

Development Trends

Integration of Poor Farmers to Current Market Value Chains Can Improve Asia-Pacific's Rural Economies

A United Nations Food and Agriculture Organization report presented at the 33rd FAO Regional Conference for Asia and the Pacific (APRC33) in Putrajaya, Malaysia on March 7-11, 2016 suggested that governments across the Asia-Pacific region should provide an enabling environment to support the integration of the agricultural outputs of poor smallholder farmers into modern efficient value chains, offering them a chance to improve their livelihoods and revitalize the rural economies.

Agriculture is the biggest employer in the developing countries of Asia-Pacific. But, because most farmers in the region are poor, self-employed subsistence farmers, these farmers are unable to market their produce through current value chains. With this, it makes it more difficult for them to break out of poverty which affects the region's overall rural economic growth. The report examined the important role that agriculture plays in reducing rural poverty across the region and recommended strategic approaches to develop value chains that can develop livelihoods and revitalize rural economies.

<http://www.fao.org/asiapacific/news/detail-events/en/c/386149/>

Are Female Farmers Being Left Behind?

As we have transitioned into the 21st century, Asia finally achieved sustained economic

growth and impressive progress, but despite all these, especially in the East and Southeast Asia, poverty in the region remains a main challenge, particularly in rural areas where the majority of the impoverished depend on the agriculture production for their daily living. According to the United Nations Food and Agriculture Organization (FAO) recent report, "Small farmers, landless and marginal farmers and their families comprise the main category of rural self-employed in the region's agriculture sector, where they hold 60 percent of agricultural land."

"The role of rural women in agriculture should also not be underestimated. Women have major roles in food production, selling and buying food, preparing and cooking food and ensuring family nutrition. So, it is really important to integrate both men and women working as small farmers into modern value chains, because that leads to increased agricultural output and improved food security," explained by Rosa Rolle, a FAO senior specialist in agro-industry and post-harvest techniques.

Rolle emphasized that many of the rural-urban migration trends include men moving to the cities to find higher paying jobs, leaving women behind to take care of their farm lands. However, many of these women do not have the tools, training or equal access to credit and land ownership to take proper advantage of the situation. To remedy this migration disease, we have to revive the region's rural economy through public incentives and investments to create a permissible and enthusiastic environment for small farmers and particularly the weak groups to gain access to inclusive and efficient value chains.

<http://www.fao.org/asiapacific/news/detail-events/en/c/386149/>

Development Trends

Japan to Open the World's First Robot-Run Farm

A Japanese company is set to open the world's first ever "robot farm", as agriculture joins other sectors of the economy in attempting to fill in the labor shortages created by the country's rapidly ageing population. It will open the fully automated farm with robots handling almost every step of the process.

Spread, a vegetable producer, said that industrial robots would carry out all but one of the tasks needed to grow the tens of thousands of lettuces it produces each day at its large indoor farm in Kameoka, Kyoto prefecture, starting from mid-2017. The robots will do re-planting young seedlings, watering, trimming and harvesting crops. The innovation will increase production from 21,000 lettuces a day to 50,000 a day, the firm said, adding that it planned to raise that figure to half a million lettuces daily within five years.

The new farm which is an extension of its existing Kameoka farm will improve efficiency and reduce labor costs by about half. The use of LED lighting means energy costs will be decreased by almost a third, and about 98% of the water needed to grow the crops will be recycled. The automated system will not only handle lettuces, but will also control the temperature, humidity and CO2 levels, as well as sterilize water and control light sources.

The farm, measuring about 4,400 square metres, will have floor-to-ceiling shelves where the produce is grown. The pesticide-free lettuces will contain more beta-carotene – an antioxidant – than other farm-grown lettuce, the company said. It plans to build more robotic plant factories in Japan and, eventually, overseas.

<http://www.theguardian.com/environment/2016/feb/01/japanese-firm-to-open-worlds-first-robot-run-farm>

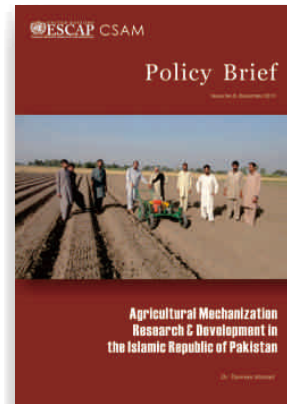
Global Farm Equipment Market Size, Industry Trends, Growth Prospects Positive Till 2022

It is reported that the Global Farm Equipment Market was valued at \$145 billion in year 2014 and is expected to grow at a CAGR of 9.6% to reach \$302 billion by the year 2022. Some of the key drivers of the market include population growth, increase in the demand for food production and need for the mechanization of farming. However, there are factors such as increasing subsidies provided by government to purchase farm equipment and support farming practices for improved quality crops that inhibit the market growth.

According to the study, Farm Equipment Market is segmented by type, by end-users and by geography. Based on type, the market is classified into Harvesting Equipment, Irrigation Equipment, Fertilizing and Pest Control Equipment, Planting Equipment, Soil Cultivation Equipment and Tractors. Based on end-users, market is categorized as Farmers, R&D in Agriculture and Home Grown Food Industries. Based on geography, market is segmented into North America, Europe, Asia-Pacific and the rest of the world. Significant mergers and acquisitions, collaborations, and joint ventures are the industry trends that are playing a major role for the market growth.

<http://www.mynewsdesk.com/in/pressreleases/global-farm-equipment-market-size-industry-trends-growth-prospects-till-2022-acute-market-reports-1293175>

Publication & Technology Innovation



Agricultural Mechanization Research & Development in the Islamic Republic of Pakistan

by Dr. Tanveer Ahmad, Director Agricultural and Biological Engineering Institute (ABEI) National Agricultural Research Centre (NARC)

In this issue of CSAM Policy Brief, Dr. Amhad presents Pakistani efforts in research and development of farm machinery specifically designed for local conditions. Designs of National Agricultural Research Centre (NARC) include sisal decorticator machinery, in-bid-seed drying and storage technology, peas planter and many others. Find the whole brief on our website: <http://un-csam.org/publication/PB201504.pdf>



MEETING NEW PEOPLE

Maria Catherine Jeneen Lambuson (Intern)

Ms. Lambuson joined CSAM on January 4, 2016. She finished her undergraduate studies in Economics at the University of Santo Tomas in Manila, Philippines. After working for more than two years as an analyst in a private financial institution, she is now in her last year of graduate studies in International Economics and Business at Nankai University in Tianjin, China. She focuses on Macroeconomics, International Economics, Trade, and Development Economics.

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 is built upon the Regional Network for Agricultural Machinery (RNAM) and the United Nations Asian and Pacific Centre for Agricultural Engineering and Machinery (UNAPCAEM), and started operations in 2004. 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 agrobusiness 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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United Nations
Centre for Sustainable Agricultural Mechanization

A-7/F, China International Science and
Technology Convention Centre
No.12, Yumin Road, Chaoyang District
Beijing 100029, P.R.China

Tel: (86-10) 8225 3581
Fax: (86-10) 8225 3584
info@un-csam.org
www.un-csam.org