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Strengthening agro-met services for pests and diseases risk management

15-16 July 2019
Kamolmart Room (6th Floor)
The Sukosol Bangkok
Bangkok, Thailand

Background

Changes in seasonality, climate extremes and climate-driven pest and disease are negatively impacting agricultural production and rural livelihoods. Informed advisories, alerts and robust early-warning systems are essential for farmers and rural dwellers to prepare for and adapt to changes in climate. As technology for monitoring and dissemination of information advances, now is the time to harness this progress in the agriculture sector to provide agrometeorological information and alerts to those who are the most vulnerable.

FAO Regional Office for Asia and the Pacific is assisting countries in the Region to

- Explore methodologies and models for producing agrometeorological information, alerts and advisories
- Provide actionable advisories and capacity development to farmer and rural communities to better use agrometeorological information and early-warning systems for agriculture;
- strengthen national institutions capacity to leverage national linkages and to develop and disseminate better agrometeorological information and early-warning systems for use in the agriculture sector;
- harness technology for dissemination (including online, social media, radio, mobile, television, etc.) and public-private partnership for dissemination of advisories and alerts to farmers and rural dwellers, to reach even the most remote and most vulnerable to climate impacts;

- enhance capacity of extension, farmer organizations and farmers, including through FAO farmer field school approach, to use the agrometeorological information at farm level to adapt to and prepare for climate change; and
- promote coordinated efforts across the Asia and Pacific region by facilitating knowledge and data exchange and linking national institutions with international research organizations to support the development of pest and disease early warning and decision support system.

Implementing new technologies will be a step-by-step and country-by-country process. This project will enable FAO to strengthen national linkages as well as adapt its wide range of tools, methodologies and applications to countries in the region.

Purpose

To investigate these issues in more detail, the FAO Regional Office for Asia and the Pacific (FAORAP) in collaboration with international partners is organizing a regional workshop on agrometeorological services in Bangkok, Thailand in July 2019.

In the framework of the Asia and Pacific regional programme for agrometeorology, the workshop aims:
- To share the current agrometeorological operation of the countries in the region and their challenges and needs
- To share FAO-supported country experience in enhancing agrometeorological services
- Introduce theme-specific operations such as pest/ disease forecast and warning, and utilization of ICT
- The countries to evaluate their needs and gap in their current capacity, to identify and prioritize the action, and to come up with a work plan
- To discuss the opportunities for collaboration among the participants and with FAO

Outcomes

The purpose will be achieved through knowledge and information exchanges, experience sharing and establishing communication among participating countries and supporting technical and development organizations. The workshop is expected to have the following outcomes:
- Shared state of knowledge and experiences with country operation in agrometeorological services to enhance the resilience in agricultural practices;
- Shared understanding of the types of information agrometeorological service can produce and available tools and methodologies to produce information
- Prioritization of the area/topics for the improved agrometeorological services and identification of the appropriate methodologies;
- Inputs provided and opportunities for potential collaborations discussed to establish a regional network for improved agrometeorological services

Outputs

The workshop will have the following output(s):
- Small report describing the national work plan of the countries
- Partnerships established within the region and beyond; also with international experts and institutions

Participants

The workshop is targeted primarily at national- and sub-national level policy makers, technical officers in the National Meteorological service and relevant institutions, researchers, and national level farmers' association. In addition, resource persons from NGOs, research organizations, educational institutes, international development organizations and think tanks will also be invited to participate.

Tentative Program Outline

Time	Session	Lead Organization
Day 1		
08.30 – 09.00	Registration	FAO
09.00 – 09.20	Opening remarks & introduction of participants	FAO, Partners
09.20 – 09.40	Introduction to the WS & introduction to Agrometeorological services	FAO
09.40 – 11.10	**Session 1: Agrometeorological Services in the countries in the Asia and the Pacific Region** ***Sharing the countries' experience in Agrometeorological operation and services*** Format: Presentations (10-15 min each) on the key topics on: • Currently produced Information • Communication to the users • Coordination and co-production across disciplines and ministries • Feedback mechanism from the users • Challenges and needs of the countries • Other issues to highlight **Presenters** • **Bhutan (Tshering Wangchen, DA)** • **Cambodia (Peou Phalla, DMH)** • **Indonesia (Yayan Apriyana, MinAg, and Marjuki, BMKG)** • **Philippines (Edna Juanillo, PAGASA, Phoebe Pua, DA, and Jemflor-Ann Imperial Santiago, DA)** • **Samoa (Anarosa Latulipe, MinAg)**	Country participants
	Coffee break	
11.30 – 13.00	**Session 2: Agrometeorological Services with overview of system and utilization of ICT** ***Sharing the countries' experience and introducing the operations on specific topics*** Format: Presentations (15-20 min each) on the topics on: • Example of other countries (including FAO-supported countries) and their agromet services including bulletins • Pest and disease early warning • Example of agromet information system and products • Use of ICT in agromet services **Presenters** • **Lao (Sengduangduan Phouthanoxay, Sengchan Silattana, MONRE)** • **Nepal (Archana Shrestha, DHM, Ghanashyam Malla, NARC and Hari Bahadur, MinAg)** • **Tajikistan / Macedonia (FAOHQ)** • **Govindarajalu Srinivasan (RIMES)** • **Sharbendu Banerjee (FAORAP)**	Country participants, FAO and partner institutions

	Lunch	
14.00 – 15.30	**Session 3: Data collection, analysis, and methodologies for producing agrometeorological information and advisories – examples of tools for producing actionable agrometeorological products** *Sharing the knowledge of applications of models, software, and methodologies for analyzing data and producing advisories for use by farmers* Format: Presentations (20 min each) on the topics on: • Meteorological and agrometeorological data • Observation from ground stations and remotely sensed data • Pest and disease data and models • Phenology and Phenological models • Soil water models • Crop models **Presenters** • **Hiroshi Nakagawa (NARO)** • **Kwang-Hyung Kim (APCC)** • **Olivier Crespo (University of Cape Town)**	Partner institutions
	Coffee break	
16.00 – 17.00	**Session 4: Summary of first day and discussion of national priorities for enhanced agrometeorological services** *Considering presentations from the day, open discussion about the objectives and priorities for the participants* Format: Plenary discussion Participants share their observations from the sessions and areas of national interest	All
Day 2		
09.00 – 09.15	***Recap of Day 1***	
09.15 – 10.45	**Session 5: Dissemination channels for agrometeorological information to farmers and extension and feedback mechanism** *Sharing lessons learned through case studies on the communication and dissemination of information to users, links to extension services and feedback mechanisms* Format: Presentations (20 min each) on the topics: • Examples of digital services or dissemination channels to users • Effective links with extension services • Case study for use of farmer measurements to ground truth pest and disease models • Perspective from the user of agromet info **Presenters** • **Siti Fatimah Batubara (MinAg, Indonesia)** • **Elisabeth Simelton (World Agroforestry)** • **Sorlaty Sengxeu (MAF, Laos)** • **Krishna Prasad Pant (FAO Nepal)**	Country participants, FAO and partner institutions

	Coffee break	
11.00 – 12.30	**Session 6: Challenges, key areas and opportunities for improved agrometeorological services (Group)** *Assessing the country needs and gaps for improved Agrometeorological Services and developing the national plan* Format: Group work Participants (country teams), in a small working group, assess their current operation as well as capacity gaps and needs for improved operation and identify the priority topics/ areas where they would like to improve their service.	All
	Lunch	
13.30 – 15.00	**Session 7: Identifying country objectives and collaboration** *Sharing the ideas for improved Agrometeorological Services and exploring the collaboration* Format: Presentations and Plenary discussion Groups share their work plan with other participants and discuss the potential collaboration and opportunities	All
	Coffee break	
15.15 – 16.15	**Session 8: Way Forward** *Discussing the future programmes* Format: Presentations and Plenary discussion	All
16.15 – 16.30	**Closing remarks**	FAO