International Seminar on

Approaches and Methodologies for Crop Monitoring and Production Forecasting

Dhaka, 25-26 May 2016

CONCEPT NOTE

1. Background

The performance of the agriculture sector, particularly crop production, is largely dependent on dynamic weather changes. The decision making process for management of national food security thus needs current information. Availability of such information is of paramount importance for mitigating food insecurity risks and for planning related government interventions, particularly in countries having large populations with vulnerable food security status. Constant monitoring of areas sown, crop growth and its condition in different areas, crop damage, and projected yields and estimates of final production is important not only for food supply management which require advance planning of remedial measures, but also preparation of provisional GDP.

Under the G20 initiative of strengthening Agricultural Market Information System (AMIS) that was conceived in the background of volatile international food markets in recent years, a project to support Bangladesh develop its market information is being implemented by FAO in collaboration with Bangladesh Bureau of Statistics (BBS) and other related government agencies. One of the focus areas identified in this project for Bangladesh is strengthening the system of crop monitoring and crop forecasting for rice and potato – the principal crops of the country.

The proposed Seminar aims to bring together experts from several countries with advanced knowledge of systems and methodologies for crops monitoring and forecasting to share their know-how and experience. Holding of this Seminar in Bangladesh will provide an opportunity for national experts to learn from the experiences of advanced countries in the Asia Pacific region and beyond, and evaluate the best practices for adoption or development of suitable methodologies for forecasting of production of rice and potato in Bangladesh.

2. Seminar Objective

The purpose of the seminar is to share global experiences and ideas on tools of crop monitoring and production forecasting. The outcome of the seminar will facilitate in finalizing an appropriate methodology of crop monitoring and production forecasting in Bangladesh for target crops of AMIS project.

The Seminar *inter alia* will:

- Increase the recognition of the theme of periodic crop monitoring and crop forecasting for decision support in the management of food security in Bangladesh;
- Strengthen institutional linkages among ministries and departments under the Government of Bangladesh as well as those working in other countries on topics of administrative reporting, agro-meteorology, crop assessment, crop monitoring, crop area and yield forecast.
- Bring global knowledge and expertise to institutions in Bangladesh;
- Support choice of appropriate methodologies for crop monitoring and production forecasting for Bangladesh

3. Technical Scope of Seminar

The technical scope of the seminar will cover any topic related to yield and production forecasting and monitoring of crop condition, in particular technical contributions will be welcome on the topics such as:

- Use of administrative reporting by extension workers for crop monitoring;
- Improving reliability of administrative systems by introducing sample surveys and spot checking;
- Techniques of estimation of crop areas in less than ideal conditions;
- Crop monitoring using remotely sensed data and estimates of vegetation indices;
- Use of GPS and GIS in crop monitoring and estimation of areas;
- Crop Yield Estimation and enumerations Surveys;
- Use of agro-meteorological information in crop modelling and production forecasting;
- Use of econometric and statistical regression models for crop production forecasting;
- Integration of forecasting techniques to enhance reliability of production forecasts;
- Any other related topic relevant to above domains of technical knowledge as relevant to the conditions of Bangladesh.

4. Participants

Besides the technical staff form local institutions, participation of resource persons from Australia, China, EU, Thailand, India, Indonesia, Philippines, Japan, Pakistan, US, Viet Nam, Asian Development Bank, International Rice Research Institute and FAO are expected to take part in the Seminar.

The Seminar will also be open to participants from other countries in the Asia Pacific region, associated with the implementation of the global initiatives like Global Strategy to Improve Agriculture and Rural Developments or AMIS project.

A total of about 60 participants are expected to participate in the event.

5. Venue

Day 1*:* Pan Pacific Sonargaon, Dhaka Hotel, 107 Kazi Nazrul Islam Avenue, Dhaka; and

Day 2: Bangabandhu International Convention Centre (BICC), Agargaon, Dhaka.

6. Costs and logistics

All participants are required to register in advance using the prescribed form contained the Information Note which provides further logistics details. There is no registration fee for the Seminar.

The logistics and local cost related to Seminar organization will be covered by the organizers.

The cost of air travel and the daily subsistence allowance of resource persons will be borne by the Seminar organizers, unless borne by the organizations for which they are working. The other participants will arrange to fund their travel through their respective governments, projects or sponsoring agency.

Annex

Tentative Seminar Format

Day 1

9:30-11:00 **Inaugural Session**
(To be structured as per local practices)

11:30-13:30 **Technical session 1**: **Contemporary practices in Crop Monitoring and Forecasting – technology, methodology, institutions and challenges**

[*Many countries have traditionally been monitoring crops using their administrative set-up and extension staff in the field. The data generated through these systems is often questioned on the aspects related to quality. Use of remote sensing, GIS, meteorological data and econometric modelling is gaining enhanced recognition for near real time assessment of crop condition and production prospects. Gradually, these methods are being mainstreamed in the information systems for food and agriculture sector for getting reliable and timely data. This curtain raising session will provide an overview of use of different types of data and methodologies for monitoring of crop condition, crop production forecasting, and crop damage assessment. The session will also take stock of recent developments and initiatives in these domains in the contexts of needs of Bangladesh.*]

(Presentations from Bangladesh, FAO-HQ, Philippines, IRRI and India requested for this session)

14:30-17:00 **Technical session 2: Country Experiences in use of Remote Sensing, GIS, Agro-meteorology and Econometric modelling for crop forecasting, and related institutional arrangements**

[*Countries in the region and elsewhere have realized the potential of remote sensing and agro-meteorology for improving their crop forecasting and monitoring systems, and for improving the reliability of crop production estimates. The session will focus on sharing country experiences on choice of technology, methodology, institutional arrangements and limitations and scopes of further improvement.*]

(Presentations from Bangladesh, India, Pakistan, Japan, Thailand, and United States requested)

Day 2

9:30-13:00 **Technical Session 3: Methodological Development in Crop Estimation Surveys and systems**

[*Established crop estimation system in many the countries is based on statistical surveys and administrative reporting. These systems also need to be periodically updated responding to the change in land use, agrarian and spatial characteristics and emerging data demands. There are newer initiatives integrating upfront technologies of spatial data and analysis to*

complement and supplement the systems of crop estimation and enhance synergy with the requirement of crop forecasting and crop monitoring. Some important initiatives]

(Presentations from FAO-HQ, Philippines, Japan and Thailand covering the title will be scheduled here)

14:00-17:00 **Technical Session 4**: **Panel Discussion on feasibility of methodologies for periodic crop assessment and monitoring for food security decision support**

[The session will begin with presentation of conclusions of each technical session which will followed by a panel discussion leading to specific recommendations for Bangladesh]

The Session Plan will be further refined with a view to having a coherent sessions and more precise Timetable after receipt of confirmation of requested technical contributions.