A Pilot Project of Area Sampling Frame for Maize Statistics: Indonesia’s Experience

Action Area D. Modernizing statistical business processes (SD2)
Modernisation is a must – six reasons why?

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Background

Issue
the Accuracy of Crops Statistics
(create public debate)

2018

How about Maize Statistics?

Objective measurement for maize harvested area data is also essential

2019

Replicate the ASF for Maize Statistics

Goals:
• To estimate maize harvested area (more accurate & timely)
• To provide spatial information on maize cultivation

Production = harvested area x yield per hectare

Still using conventional method: *eye estimate*
The Construction of Area Sampling Frame for Maize

**Data input**
- Topographic, administrative, and land cover map
- Spatial information of potential maize location

**Overlay**
Overlay the spatial information of maize potential location into segment grid 100m x 100m

**Preparing supporting data/information**
- Grid Formation 100m x 100m (segment)

**Creating statistical unit**
Overlay spatial information into segment

**Determining the label**
The labelling is carried out using the priority principle of accuracy

Sample segment selection (simple random sampling with a distance threshold)
Field Observation

during the last 7 days every month

*Android-based Application*

Direct observation at the observation points

**Blue dot:** position of the enumerator

**Red dot:** observation point

**Green rectangle:** the boundary of the segment, which is divided into four subsegments

Application display after identify and take the photo of the growth phase

SEND TO SERVER
Current Progress & Preliminary Results

Percentages of samples realisation

Business process of data collection more efficient and faster due to the use of technology

Build strong collaboration

spatial distribution of maize cultivation
Challenges and Future Development

1. Unavailability of Spatial Information of land area specifically dedicated for maize cultivation

Conducting studies related to computation of potential maize area

2. The possibility of misidentification of maize growth phase

Improve the business process of monitoring:
- Upgrading web-based monitoring
- Creating Android-based monitoring system

3. The geographical difficulties and a massive coverage require more effort and a massive number of enumerators
Thank You