



## Challenges and Opportunities in Producing Agricultural Statistics

Michael A. Steiner

National Agricultural Statistics Service, U.S. Department of Agriculture

michael.steiner@nass.usda.gov

An effective system of agricultural information requires a vast amount of agricultural data. The lack of an effective system of agricultural information seriously limits agricultural policy analysis and market analysis by both public and private sector decision makers. With the importance of food security on the global policy agenda, and with over eight hundred million people chronically undernourished in the world, improved agricultural policy analysis is needed. While agricultural productivity has increased in recent decades, environmental issues may impact future productivity increases. Large amounts of accurate, relevant and timely statistical information are necessary for an effective system of agricultural information.

Multiple types of data are needed by many different data users. The following are some of the types of data needed: production data for crops (including fruits and vegetables), livestock and livestock products; economic, including prices and cost of production; land utilization; water utilization; storage of agricultural products in grain storage facilities or cold storage facilities; post-harvest loss. There are many challenges in producing agricultural statistics for any of these areas. For example, large number of different crops, crops with different growing season, multiple crops on the same field, crops with continuous production, and small fields are some of the challenges in producing crop statistics. Data users include anyone using data that will affect government policy, private or public investment, production decisions, marketing decisions, or monitoring decisions. While data needs for agricultural information are high, resources for producing agricultural information have been very low in many countries.

Technological advancements create many opportunities for countries to make significant advancements in producing agricultural statistics. Measuring the area of fields using GPS devices instead of with old methods of using a compass and chains is a major advancement, saving a significant amount of time. Data collection using computer assisted devices instead of using complicated paper questionnaires improves accuracy and contributes towards the publication of official statistics in a timely manner. Use of remote sensing for estimating crop statistics is another technological advancement.

The types of data needed for an effective agricultural information system will be presented, and the problems associated with lack of timely data will be addressed. An overview will be given on opportunities presented by technological advancements.

**Keywords:** agriculture, agricultural statistics, agricultural information system