Future Perspectives for Agricultural Statistics: Discussion

Kelley White

Economic Research Service, U.S. Department of Agriculture

1. Introduction

My comments are stimulated by the four papers I received prior to the conference:

- "Issues and Concerns for Developed Countries" by Andreas Lindner, OECD,
- "Issues and Concerns for Emerging Market Countries" by Irena Orešnik, Republic of Slovenia,
- "Issues and Concerns for Developing Countries" by Kabat, Naiken, Marshall and Narain, FAO, and
- "Trends Affecting Agricultural Statisticians" by Rich Allen, NASS, USDA.

These papers, as intended by the organizers, I'm sure, and as indicated by their titles, reflect different perspectives on the future for agricultural statistics. They do that quite effectively, but I was struck by the recurrence of several themes through the several papers. Since I find little with which to disagree in the papers, instead of commenting on each paper individually, I would like to focus on these recurring themes and attempt to raise some related issues that will, hopefully, further stimulate your discussion.

I characterize the themes as follow:

1. The world of agriculture is changing and changing and changing,
2. Need for consistency and compatibility across national statistical systems,
3. Need for agricultural statistics increasing while resources are diminishing, and
4. Advances in information technology opening new opportunities *and* raising expectations.

2. The world of agriculture is changing and changing and changing

Change is nothing new, and neither is the recognition that as agriculture changes so do the needs for agricultural statistics and the problems associated with meeting those needs. However, it does seem that the pace and scope of changes affecting agriculture are faster and broader, and the implications for agricultural statistics and statisticians are more profound than in the past. I will focus on what seem to me to be some of the more important changes and attempt to draw implications for agricultural statistics.

2.1 Globalization

Globalization of agricultural markets is a continuing but incomplete process. While much progress has been made in reforming agricultural trade policies and liberalizing agricultural markets, agricultural markets are still among the most distorted. The increasing proportion of agricultural and food products and factors of production that flow across national boundaries greatly increases the importance of readily accessible, reliable statistics describing supply and demand conditions within trading countries

as well as trade-flows among countries. Since the policy reform and market liberalization process is far from complete, there continues to be the need for statistics characterizing government policies and actions that influence or substitute for market forces and the degree to which they distort trade.

The economists and trade negotiators will still find historical statistics describing conditions one, two or three years ago useful, but the trader is more interested in current conditions. The past attempts to link and integrate national statistical systems by the FAO, OECD and the U.N. have served imperfectly as a mechanism for providing historical statistics and would appear far too cumbersome to meet the needs of producers, consumers and traders for current information on which to make decisions. The question is, what is the role of national and multinational, public statistical agencies, what is the role of the private sector, and how do the two sets of institutions interface?

2.2 Marketization

Most countries have participated in the trend toward marketization as governments have reduced the degree to which they attempt to influence and substitute for market institutions and forces in making agricultural production, distribution and pricing decisions in domestic and international transactions. This transition has been most profound in the Former Soviet Union and Eastern and Central European countries, but it has also occurred in most OECD and developing countries. The process of marketization has multiple effects on and implications for agricultural statistical agencies. First, it changes the reason governments are interested in agricultural statistics. When the government is making production, distribution, pricing and resource allocation decisions centrally, the need for statistics is by the government to use in managing the sector. The flow of data from the production unit to the central government is critical. The reverse flow is decisions/commands, not statistics. When markets are relied upon, the desired role for government is to assure the collection, processing and dissemination of information and data needed by private firms and individuals to make decisions. This change in role is more than simply changing the direction of flow of the process, but it changes the kinds of statistics needed and, even more important, it requires a change in philosophy — make the best information as widely available as quickly as possible rather than keeping the information as close as possible because it is valuable as a source of bureaucratic power.

Even in a country like the U.S., the marketization process has potential implications for government interest in agricultural statistics. Since the 1930s, the Federal Government needed statistics with which to formulate and manage its commodity programs. With most of these programs abolished, will there be the need and support for the same commodity statistics? With policy shifting to provision of safety nets — food safety and management of the environment — is the government need for statistics going to expand or is there going to be a requirement for substitutions?

2.3 Structural Change — Concentration, Integration and Specialization

Changes in the structure of agricultural and food industries and firms are occurring in all countries, and are not restricted to changes in structures within national boundaries. These structural changes have important implications for the kinds of statistics needed, the constraints on data reporting, transactions as a source of data, access to firm-level data, and the public-goods value of statistics. Specialization in production and marketing can mean that the commodity nature of agricultural products is lost (i.e. that generic corn is no longer a meaningful level of product specificity at which to report production, sales or prices) and the demands on the statistical agencies increase. Specialization may also increase the number of changes in ownership before the final product reaches the ultimate consumer. This increases the potential transactions, if there are market transactions between firms, that can be observed and

reported — how many and which of these transactions should be captured by the statistical system? On the other hand, integration has the effect of reducing the number of observable market transactions between initiation of the production process and the final consumer — how do we determine the price of live broilers, if the first inter-firm transaction is the sale of the chicken pot pie to the supermarket? Does it matter? If so, how can prices and quantities of intra-firm transactions be obtained? And, if they can be obtained, can they be made public? Should statistical agencies be collecting and disseminating information on contract terms rather than production and prices of products in highly integrated industries?

These structural changes extend across national boundaries and pose problems for development of statistics that realistically characterize trade. How are the cross-border transactions between branches of a single firm to be valued? As barriers to trade are lowered and markets are fully integrated, does it become less important to know whether a ton of wheat is produced in the U.S. or Canada when it is exported? Should we be moving toward a North American Agricultural Statistics Service?

2.4 Changing External Forces

As agriculture becomes a smaller part of the national economy and the government role in the food and agriculture sector possibly diminishes, and certainly changes, the nature of the external forces affecting agriculture also change. For example, the impact of agricultural production on air and water quality become more important concerns to the general population than agriculture as a source of employment, income and economic development. Of course this transition is much more advanced in the OECD countries than in the developing countries, but even there, it is occurring and is becoming a component of trade policy negotiations. This changing public interest in agriculture also implies a need for non-traditional statistics. There is growing need for development of indicators of environmental quality, quality of life measures, and data bases that will support research to better understand the relationship between agricultural production and these environmental qualities.

3. Need for Consistency and Compatibility across National Statistical Systems

Most of the changes discussed above and all of the papers in this session point to the urgent and growing need to find more effective means of achieving consistency and compatibility across national statistical systems. This achievement will require much more than international agreements and development of standardized procedures and questionnaires by multinational organizations. It will require development and significant strengthening of national research systems in developing and transition countries. I'm sure that, to all of you in this conference, this is a statement of the obvious. But while at FAO and since returning to USDA, I have been surprised at the number of users of data from FAO, OECD and the U.N. who complain about the quality of that data and want to know why these organizations can't collect better data. They don't realize that the data are supplied to the multinational organization by national statistical agencies and that until these systems are better there is very little that FAO, for example, can do to improve the quality of data in its data bases. The failure to recognize the importance of national statistical systems leads to misplaced criticism and inadequate support to provide assistance to national systems.

One other truism is probably worth stating. This is that strong national statistical systems will be maintained only when it is important to the national government to have quality statistics for policy and program decision-making within government and to provide quality statistics to the private sector for business decisions. It is rare that a national government is going to allocate substantial scarce resources to maintain a world class statistical service for the benefit of other countries. Unfortunately, in many

countries there is not a tradition of making policy and program decisions on the basis of data and analysis. To the extent that this is true, achievement of significantly improved data systems in many countries will require development of a demand for statistics and analysis as well as a supply capacity.

4. Need for Agricultural Statistics Increasing while Resources are Diminishing

As an economist I recognize that the appetite for more and better statistics is insatiable. All of the papers for this session referred repeatedly to the *need* for more statistics. There were few calls for eliminating data sets. I have been guilty of the same in my discussion of changes in agriculture. While it is true that technological innovations are making it possible to do more with less, these efficiencies are unlikely to allow statistical agencies to do everything that they have done in the past and all the new things that are being asked of them. As an economist, I not only have an insatiable appetite for statistics but I also recognize that supply responds not to need but to demand. Which statistical series are maintained in the long run will depend on someone's willingness to pay. Unfortunately in the public sector, indicators of this willingness to pay are not as obvious or sharply focused as in the private sector. This sometimes results in the price signals being rather blunt and agency budget cuts may be an indication of decreased demand for some data product, but it may take some trial and error to identify the products for which demand has increased and for which it has decreased. Sometimes whole agencies disappear in this trial and error search. The same can be true for multilateral organizations. Thus, as called for in several of the papers, it is important that producers and users of agricultural statistics undertake a joint effort to identify changes in demand. It is also essential, in the changing agricultural environment, to sort out what is best done by the private sector and what must be done by the public sector. Resource constraints will not allow duplication of effort just because we have always done it that way.

5. Advances in Information Technology Opening New Opportunities *and* Raising Expectations

In almost no area has the explosion of technology had greater impact than in data and information collection, storage, management and dissemination. It is easy to be lulled into a false sense that these technological advances are going to increase our efficiency so much that we can meet increasing demands for our services with fewer resources and make everyone happy. To some extent, this will probably be true, but I have recently been reminded of two sometimes forgotten facts that we need to remember. Just the other day, I was looking at the proportion of staff in my agency that is classified as "support" and was surprised to learn that this proportion has remained approximately constant over the last twenty years. I would have bet more than a beer that we had drastically reduced the support share. What has happened is that we no longer have statistical clerks keying in data and have relatively few secretaries typing manuscripts. But we now have lots of programmers developing and maintaining software, data base managers, a help desk to solve our problems with personal computers, a sizable staff developing and maintaining our home page, etc. Granted, we do lots more with fewer people but this new technology is not costless. The second observation is that as we depend more on computers for analysis and data base management and on electronic means to disseminate our product, the deadlines we are given get shorter, complaints that our data cannot be downloaded in the format desired grow, and we are told that our home page isn't as user-friendly as it could be. The bottom line is that "there ain't no free lunch" and increased capacity leads to rising expectations.