Perennial Problems and Innovative Options for Improved Data to Support Agricultural Policy and Investment Modelling

Stanley Wood
International Food Policy Research Institute
Washington, USA
Email: s.wood@cgiar.org

Peter Hazell
Imperial College
London, UK
Email: p.hazell@cgiar.org

Abstract: Both policymakers and the broader community of public and private investors concerned with agricultural development are placing increasing emphasis on evidence-based approaches to decision-making. Contemporary examples from Africa include the establishment of sub-regional analytical and knowledge support systems to support the Comprehensive Africa Agricultural Development Plan (CAADP), as well as the rapidly expanding investments in improved data and analysis for investment targeting associated with the new Agricultural Development Program sponsored by the Bill and Melinda Gates and the Warren Buffett Foundations. While the expectation is that increased availability and accessibility of information and analysis will result in more informed debate and more effective policies and investments, the evidence-based strategy is compromised – often severely – by the limited scope and highly variable quality of primary statistical and survey data on agriculture and key related sectors. This is particularly troublesome in the design and performance of systems for monitoring the impact of policies and investments. Some problems are well known, such as the quality of basic data on crop areas and yields, input use, and output and input prices, and these are briefly reviewed in the context of quantitative modelling needs. But agriculture-focused modelling efforts, particularly those concerned with assessing poverty impacts of change, often demand additional types of information, such as; typologies of households and their market responses to income and price changes, the extent of adoption of improved production technologies and practices, and the share of own output consumed. Another challenge is the growing complexity of information needs that impinge on agricultural policy and investment decisions. Concerns about food safety, certification of production locales and practices, and environmental impacts (increasingly in the context of tradeoffs in the provision of food versus other ecosystem services) imply the need for more comprehensive data gathering, even at a time when funding for conventional data gathering is precariously low. We describe some innovative means of data collection, such as increased reliance on remote sensing and the design of smart agriculture/environment monitoring systems options that may also offer more integrated and cost-effective means of collecting data of value for both statistical as well as quantitative modelling purposes.