

**Methodological developments for improving the reliability and cost-effectiveness
of agricultural statistics in developing countries**

Elisabetta Carfagna
FAO and University of Bologna, Bologna, ITALY elisabetta.carfagna@unibo.it

Monica Pratesi
University of Pisa, Pisa, ITALY m.pratesi@ec.unipi.it

Andrea Carfagna
ITALY andreacarfagna@virgilio.it

Statistically sound methods, based on probabilistic samples selected from complete and updated lists of farmers allow producing accurate and timely agricultural statistics if good quality data are collected through the interviews. These statistics are essential for knowledge based planning, in order to facilitate rural development and reduce poverty and food insecurity. However, traditional statistical methods are very costly and the reliability of information collected through interviews is sometimes debated. Consequently, there is a strong need to review the methods adopted in developing and developed countries, in order to assess how their cost efficiency can be improved. In some cases, new methods should be developed, which allow for more efficient use the new technologies, mainly Geographic Information Systems (GISs), GPS Global Positioning Systems (GPSs) and remote sensing. Some considerations on this topic are presented in this paper.

Key Words: Agricultural statistics, cost-effectiveness of statistics, technological and methodological development.