The Integrated Survey Framework in the Redesign of Sample Surveys in China Agricultural and Rural Statistics

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In China, the National Bureau of Statistics (NBS) is responsible for both of agricultural production statistics and rural statistics which are conducted by sample surveys throughout the whole country. The ongoing sample survey programs are targeting for provincial estimates which includes: crop acreage and yield surveys, livestock surveys, agricultural producer price surveys, intermediate consumption surveys of agriculture products, rural household surveys and poverty monitoring surveys. Every five years, the NBS will implement a complete sample rotation to draw new samples to replace the old samples. Year 2010 is the year to implement sample rotation in agricultural and rural survey programs in China.

Taking the advantage of a complete sample rotation, the Department of Rural Surveys under NBS is aiming at implementation the “Global Strategy to Improve Agricultural and Rural Statistics” under the China context. The NBS is emphasizing two aspects of survey methodology improvement which are conceptual framework and integrated survey framework. On one hand, we are trying to adjust the contents of ongoing surveys in line with the recommended core indicators of the global strategy, and are paying more attention to environmental sustainability as well as the interrelationship with traditionally economic and social dimensions. On the other hand, we are trying to construct a master sample frame to redesign the ongoing sample survey programs such as crop surveys and rural household surveys in an integrated approach.

In China, the year 2010 sample rotation and redesign have two obvious features.

In the first place, NBS is undertaking to develop a master sample frame to meet the needs of variously agricultural and rural sample designs, which is a combination of traditional list frame and new area frame. Based on the second agricultural census in year 2006, China has developed a list frame at each census enumeration area level which is equivalent to a natural village level under the administrative village. For the
time being, NBS is starting to develop the area frame in several provinces by utilizing the remote sensing images and GIS techniques.

In the second place, NBS has adopted improved sample designs for its ongoing agricultural and rural survey programs throughout the whole country. The improved sample design has taking the consideration of expanding survey subjects and multiple user needs at different levels of government such as provincial, prefectural and county levels. For crop surveys, the new design is based on the area frame approach instead of previously used list frame. The census enumeration areas are selected to be surveyed as clusters to estimate the crop acreage, and a subsample of plots is used for the on-site reaping and measurement of the crop yield. Furthermore, in order to integrate the separate urban and rural household surveys, a coordinated urban-rural classification released by the NBS, a unified income conception and sampling approach have been adapted in new household sample selection.

In conclusion, the NBS is now practically to improve the methodology of its agricultural and rural surveys by taking the advantage of implementation of the “Global Strategy to Improve Agricultural and Rural Statistics” under China circumstance.