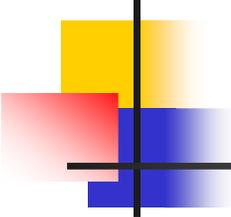


The Integrated Survey Framework in the Redesign of sample Surveys in China Agricultural and Rural Statistics

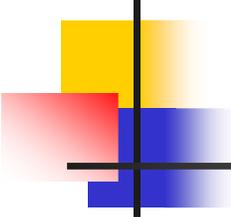
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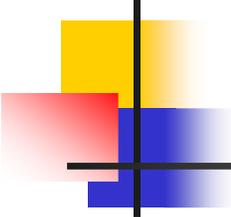
Outline

- Brief introduction of China's agricultural and rural statistics
- Challenges encountered
- Opportunities
- Integrated agricultural and rural surveys in the redesign of ongoing survey programs
- Innovative activities
- Summary



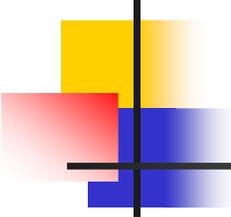
Brief Introduction of agricultural and rural statistics in China

- A Centralized statistical system, the National Bureau of Statistics (NBS) is in charge of most official statistics in agriculture and rural economy, such as grain production, household income and expenditure surveys, agri. producer price surveys, etc.
- Survey sampling is widely used for agricultural and rural statistics, although complete statistical reporting is still remaining as a complement.



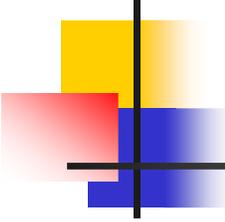
Brief Introduction of agricultural and rural statistics in China

- Agricultural census is implemented every ten years, and the result is used to update list-frame for sampling.
- the Ministry of Agriculture (MOA) has its function on some kinds of agricultural and rural statistics for the purpose of agricultural policy-making and monitoring of policy implementation. The data are mainly collected from complete statistical reporting and some typical investigation.



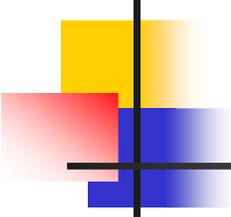
Challenges encountered

- The current survey scope is mainly limited to grain production and household survey etc. The survey scope should be extended to more sub-sectors of agriculture and rural development, and adopt sampling approach to conduct survey.
- The data collected by remaining complete statistical reporting have some overlapped indicators with that of sample surveys. Redundant indicators need to be examined and eliminated.



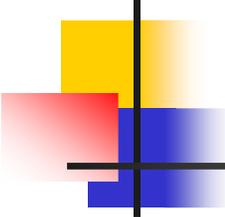
Challenges encountered

- The current sample design is aiming to meet the need for provincial estimation in terms of precision, but could not break down to prefecture and county level to satisfy the data needs at lower levels.
- Constrained to current methods adopted for sample surveys, sample design need to be further improved. Crop surveys are based on list frame instead of area frame, rural household surveys and urban household surveys are conducted separately.



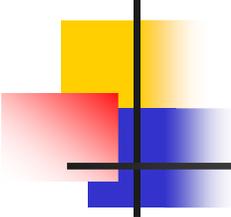
Opportunities

- For China's 12th five-year plan during 2011-2015, NBS is working on its national strategy for the development of statistics, which has integrated the agricultural statistics into the national statistical system.
- In 2010, the top management of NBS proposed an initiative on “three improvements” : to improve the statistical capacity, survey data quality and official statistical accountability.



Opportunities

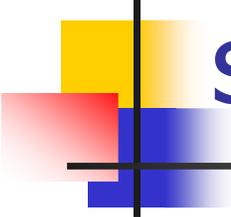
- Using the conceptual framework and integrated survey framework of Global Strategy as a guideline, NBS has re-designed its ongoing surveys in 2010 taking the advantage of this year's sample rotation.
- In order to further improve methodology, NBS has conducted several pilot surveys, such as :
integrated urban and rural household surveys,
crop acreage surveys based on area frame,
crop acreage measurement by remote sensing.



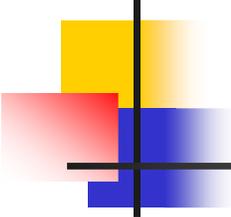
Integrated agricultural and rural surveys

- The integrated surveys should meet the multiple user needs and overcome the redundant indicators from other surveys. A core indicators for ongoing surveys is under construction.
- In Chinese context, the integrated surveys should provide solutions for appending samples, so that extended samples could produce not only the provincial estimates but also prefecture and county level estimates.

Integrated agricultural and rural surveys

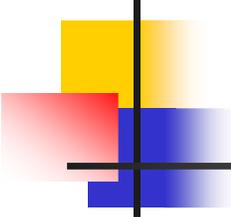


- In 2010, NBS is implementing a sample rotation for agricultural and rural statistics.
- Due to area frame for whole country is not available now, a list frame which serves as a master frame is developed from the results of second agricultural census' 2006.
- New samples for ongoing surveys are selected by using redesigned sample schemes, including rural household surveys, crop surveys, surveys on agricultural producer prices etc.



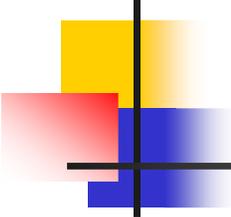
Innovative activities: Integrated household survey

- In order to further improve the methodology for agricultural and rural surveys, several innovative activities are exercised in recent years.
- Collaborated with Statistics Canada, a pilot project of integrated urban and rural household survey has conducted in four selected counties from Beijing, Zhejiang, Henan and Sichuan respectively for a five quarters' diary-keeping during 2008-2009.



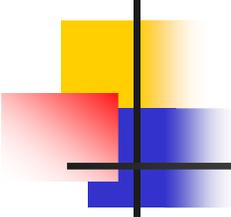
Innovative activities: Integrated household survey

- The pilot adopted the unified classification for urban and rural areas, survey indicators, sampling methods and data processing tools throughout both the urban and rural areas.
- The pilot survey of five quarter duration has tested a new sample design, questionnaire design, survey approach, and rotation pattern, which will be extended to implement nationwide by 2013.



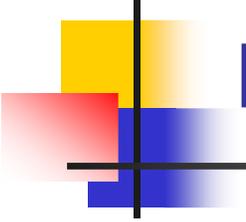
Innovative activities: crop acreage survey

- Since the second half of 2009, the NBS has been conducted a pilot survey on crop acreage based on the area frame, in six counties from Liaoning, Jilin, Anhui, Jiangsu, Henan and Xinjiang respectively.
- Recently, a Land Use Census has just been completed by the Ministry of Land and Resources (MLR) of China, and the satellite image of remote sensing for those pilot areas has been shared with the NBS for the purpose of area frame construction.
- So far, a preliminary result is achieved.



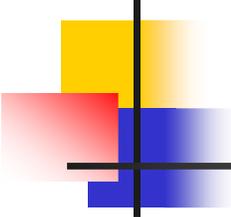
Innovative activities: acreage measurement by RS

- From 2006 the NBS jointly work with relevant research institute to launch a project of remote sensing application on crop acreage measurement as well as yield monitoring in Jilin, Jiangsu, Henan and Hubei provinces.
- The acreage measurement for several major crops is based on multi-source satellite images, a combination of coarse resolution, medium resolution and high resolution image data.
- In addition, some selected segments for ground truth observation is critical.



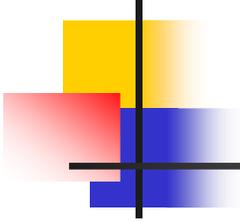
Innovative activities: acreage measurement by RS

- So far, a series of field operational guides for ground truth as well as technical documentation for acreage measurement have been formed.



Summary

- To implement the Global Strategy in Chinese context, NBS would emphasize the improvement of survey methodology:
 1. Speeding up the integrated urban and rural household surveys
 2. Pushing forward crop acreage surveys based on area frame
 3. Gradually applying remote sensing application on the crop acreage measurement and yield monitoring across the nation.



Thanks for your patience