# Improve Data Quality of The Chinese Agriculture Economic Accounting

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Agriculture is an important sector in China. The value-added of agriculture took a share of 10.6 percent to GDP in 2009. The EAA (economic accounts for agriculture) is the basis of national economic accounts. The core index of EAA is the value-added of agriculture and its growth rate. Agriculture statistics are unceasingly perfect with the improving of EAA, the agriculture index is more coherent. From 2003, the growth rate of Chinese agriculture value-added uses price reduction exponent method, the total agricultural output value uses the agricultural product classification catalogue that National Bureau of Statistics worked out . In 2005, NBS practice administration to agriculture value-added of 31 provinces, include: accounting range, accounting method, data source and data use.

This thesis introduce the current situation of EAA, Chinese explorations in the respect of improving EAA data quality. Point out the reason of effecting the chinese EAA data quality in recent 2-3 years, put forward the conceive of improving EAA data quality in the future.

#### **I**. the current situation of Chinese EAA

The core index of EAA is the value-added of agriculture and its growth rate. Reflect production results and proportiong of agriculture, forestry, herding, fishery. Provide data to national economy accounting. The Chinese EAA include agriculture production value and the value-added of agriculture.

# i . Organize

EAA is counted and organized by provincial bureau. The provincial bureau report the quarter and the year form to NBS according to the demands of NBS. Survey Organization of NBS provid the corresponding data.

## ii. Scope and range

EAA scope and range is product value in the field of this area within certain inherent period and various supporting nature to serve value.

EAA units are peasant household, corporation unit and serving activity unit that provide agriculture product and serve activity.

#### iii. Calculate method

The national data is gathered by each province. According to agriculture produce characteristic, EAA use "producing method" and "assignment method". Agriculture, forestry, animal husbandry, fishery adopt "producing method", Present-price production value = product yield\* product price, comparative-price production value = present-price production value/ price index, development speed= comparative-price production value/ present-price production value. Agriculture, forestry,

herding, the fishing added value equals to total output value deducts agriculture product middle consumes.

The agriculture, forestry, herding, fishing servicing production value adopts "assignment method". The census year gets from the business income directly, Agriculture, forestry, herding, fishing servicing business added-value = Agriculture, forestry, herding, fishing servicing business income × added-value rate.

The development rate: Before 2003, the Chinese agriculture development rate adopts the 1990 constant price calculation. Since 2004, the Chinese agriculture development rate adopt the agricultural product price index.

Growth rate of agriculture= Output value (value-added) at comparable price of farming, forestry, animal husbandry and fishing at the report period/ output value (value-added) at current price of last year of farming, forestry, animal husbandry and fishing \*100%

### iv. Accounting standard

EAA accounted according to new 《 national economy profession classification standard 》 and 《 agricultural product catalogue 》. In recent years, 《agricultural product catalogue 》 has revised two times. From 2003, EAA accounted according to new agricultural product catalogue. Classification of the agricultural product is more detailed, and put into use so far, the NBS has announced new agricultural product classification catalogue in 2009.

#### v . Data collection

The EAA is dependent on every special investigation, EAA accounting data comes from the annual report, branch statistic.

#### vi. Data announcement

The agriculture added-value is to satisfy the need of national economy accounts, reflects the developing trend of agriculture produces. For the quarter and year data, every province uses the data that NBS approve and couple back, the country coincides with every province. 1-3rd quarter agriculture added-value is published 20 days later after this season. In January 20 or so of the next year, the 4<sup>th</sup> season data published and used on "statistic communique" on February. On the middle of March of the next year, agriculture added-value announced on "China statistic yearbook", "Chinese rural statistic yearbook".

- □. The reason of affecting Chinese EAA data quality
- i. The quartly product output is absent such as vegetable, fruit, flowers and plants, what are account for 70% in the first half of the year, but country has not these data, every provincial EAA data can not be controlled by country.
- ii. Forestry and the fishery production data of quarter and year come from the branch statistic division, are still late, EAA accounting sometimes can only adopt the accuracy estimating number, so this effect accounting accuracy.
  - iii. Quarter value added rates obtain from year value added rate,

according to the change of quarter weather and capital goods price etc. adjusted correspondingly. The accuracy of value-added rates is affected when the climatic anomaly and fluctuations in product prices.

#### ☐. Measure of improving EAA data quality

i .Work out and use the new agricultural product classification catalogue

In 2009, National Bureau of Statistics has announced new agricultural product classification catalogue, and will put into use it from annals in 2010

ii. Work out the control method of the EAA data quality whole-proceeding

#### i ) Standard data source and collection

The accurate product output and price data are the basement of EAA, NBS stipulate: If agricultural output carries out sampling investigation, the country and the province use investigation data to account EAA; If does not carry out sampling investigation, the country and the province use the data reported one by one step; The data that the branch counts are put into use after the bureau check carefully.

# ii) The country calculate main product output value

In order to reinforce the country communicate with the province, the country tries to calculate provincial agricultural product output value, will finally inform every province. If the result difference is big between the country and province, the country will check and ratify by setting up a boundary. The calculating index includes: Paddy rice, wheat, maize,

cotton, pig, cattle, sheep, chicken.

## iii) Examining and verifying data reported by province

Compare output, price and consumption data that country use and province use; Examine and verify unit product output value; Examine and verify vegetable output and price; Examine and verify central consumption

#### iv) Data revise

EAA is calculated by output of agriculture, forest, herds and fishery. When report form yearly and quarterly, except the crop farming and animal husbandry output data, forestry and the fishery data are not ascertained ultimately until May or June. So year and quarter agriculture added-value will be adjusted after these data ratified.

## iii. Estimate EAA System

National Bureau of Statistics appraised every aspect of EAA system this year, for example: whether EAA method is unified in the whole nation, the basis data use is standard or not, whether the country agriculture added-value equals all provincial agriculture added-value. NBS brought forward problems and improved measurement.

□. The aftertime EAA data quality improve conceive

# i . Reinforce training of EAA staff

In recent years, National Bureau of Statistics pays attention to the EAA data quality very much, the request for EAA is more and more high. Alteration of EAA staff is big, National Bureau of Statistics requires special subject training to staff every year, improves their cognition of EAA

significance, improves their accounting ability.

### ii. Reinforce EAA basis data norm

NBS examines and verifies the product output and price data that every province uses strictly. According to the whole year seeded area of fruit, vegetable shares the quarter fruit, vegetable output. Improve the main agricultural product consume investigation, reference cost investigation data, appraise agriculture added-value rate, control and adjust the provincial added-value rate effectively.

iii. Reinforce examination of grass-roots unit work, carry out EAA surveying

After quarterly reports and the annals job are over, the provincial bureau examinants main indicator on the spot. Especially verify forestry and fishery branch's data on spot that increase or decrease extently.

EAA involves to agriculture, forestry, herd, fishery production, consumption, service. Through the investigation and study, knows the basic situation, clear and definite the difficulty and key, build the foundation of EAA in the future.